SAINT LOUIS UNIVERSITY.

Doisy College of Health Sciences

2021-2022 Program-Level Assessment: Annual Report

Program Name (no acronyms): Magnetic Resonance Imaging	Department: Clinical Health Sciences
Degree or Certificate Level: UG	College/School: Doisy College of Health Sciences
Date (Month/Year): September 2022	Assessment Contact: Marcey Kennedy

In what year was the data upon which this report is based collected? AY 2021-2022

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

Is this program accredited by an external program/disciplinary/specialized accrediting organization?

Note to DCHS Programs:
Please use this format to title each report file- 2021-2022, Magnetic Resonance Imaging, Prog-Lvl Assess AnnualRpt

Upload completed reports to the T-drive here: [each program has a separate folder]
Allied Health | Common | 1.2-2021-2022 DCHS ProgLvlAssessRpts

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1. **Student Learning Outcomes**
   Which of the program's student learning outcomes were assessed in this annual assessment cycle? (Please list the full, complete learning outcome statements and not just numbers, e.g., Outcomes 1 and 2.)

   PLO #2 "Students will demonstrate effective communication skills when interacting in the MRI profession."
   PLO #3 "Students will apply critical reasoning as it relates to the MRI setting."
   PLO #4 "Students will demonstrate application of professional knowledge."

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 and identify the course(s) in which they were collected. Clarify if any such courses were offered a) online, b) at the Madrid campus, or c) at any other off-campus location.

   PLO #2: **MRI 4350 Patient Care and MRI Safety:** Screening Assessment Activity, **MRI 4910 Clinical Practicum:** Preceptor Evaluations

   PLO #3 **MRI 4410 Clinical Practicum I** and MRI **4910 Clinical Practicum II:** Critical Reflections

   PLO #4: **MRI 4960 Capstone in MRI:** Capstone Paper and presentation

   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 document** (please do not just refer to the assessment plan).

PLO #2: The <u>Screening/assessment Activity</u> was reviewed by MRI faculty utilizing a rubric for the assignment, <u>Preceptor Evaluations</u> from the Mid & Final rotation evaluations and the program assessment plan rubric.

PLO #3: Critical reflections were assessed by program faculty utilizing a rubric for the assignment. Critical reflection instructions were edited for this year with scheduled topics. The topics included "Cura Personalis, ethics, and professionalism.

PLO #4: The <u>Capstone Paper</u> was critiqued by program faculty for content and format following prescribed. parameters and the program assessment plan rubric. The Capstone presentations were critiqued by program faculty members and MRI Advisory Board members for content and format following prescribed parameters (Appendix) and the program assessment plan rubric.

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)?

PLO #2: An average of 85% of students achieved a ranking of "knowledge" or above using the corresponding assessment rubric. ALL students ranked at "analysis" level for the assessment activity demonstrating proficient representation of knowledge. All students progressed from "analysis" to "synthesis" in the clinical practicum demonstrating effective, professional communication with patients and professionals.

PLO #3: An average of 85% of students achieved a ranking of "synthesis" using the corresponding rubric. With the new instructions, the students had more direction for content. The students had rich reflections directed of incorporating clinical experiences to implications of self and the profession.

PLO #4: An average of 85% of students achieved a ranking of "synthesis" using the corresponding rubric. The capstone papers covered a diverse list of topics and were well written. The presentations were evaluated by advisory board members and faculty resulting in a broader experiential group and fresh viewpoints.

5. Findings: Interpretations & Conclusions

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

PLO #2: The screening assessment is always a rich learning project initiating the importance of effective communication. The preceptor evaluations are crucial and show progress of student professionalism. Work has begun to improve the metrics for clinical preceptor evaluations to more accurately assess all portions of practicum requirements.

PLO #3: The clear instructions for the topics of the reflections was a success. With the new reflections, these can be used for examples for the next class.

PLO #4: The capstone papers are typically very good with diverse topics. The presentations are evaluated by a larger group than faculty. This gives a broader look at these presentations. This also challenges the students with application of professional knowledge along with speaking and developing the presentations.

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

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

Nuclear Medicine Technology, MRI, and Radiation Therapy faculty collaborate on a regular basis for information sharing, problem solving, and improvements in these programs. On a monthly basis, Program Directors and Clinical Coordinators meet to discuss program and process improvements. The Affiliations

Committee shares information and seeks resolutions for issues with clinical practicum and is a great resource for information sharing.

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.

Recent changes to the MRI curriculum include course mapping and a few new courses to accommodate the new curriculum map. The summer practicum has been removed. This coming school year will be a different data collection schedule.

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 Patient Care and MRI Safety course evaluation methods were changed to incorporate critical thinking in the learning process. Homework assignments were "technologist" scenarios for students to consider, improve, or change. The answers all required critical thinking, patient interaction, and safety. The final "exam" in this class is changed to a written paper for critically thinking about the MRI environment and how it could be improved.

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

   The final paper has a dedicated rubric for evaluation.
   The Course Evaluations from the students.

   C. What were the findings of the assessment?

   The students enjoyed the class, finding is beneficial for future careers. They also appreciated the evaluations with the scenarios.

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

   The use of the course evaluations is beneficial. Great ides for improvement can come from these. Sharing ideas with faculty and clinicians is useful as well. Collaboration I key.

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

For DCHS Programs:
If you choose to copy/paste items from the list above* and those below^, clearly label them within the Word document.

FINAL EVALUATION FORM
(See reverse side for key)

The student **did / did not** complete this rotation. 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** _____ N**o (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** = Exceeded   **2** = Satisfactorily Met   **1** = Minimally Met   **0** = Not Met

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
INTIATIVE/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 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/30 =** _____ **AVERAGE SCORE**

Mid Rotation Evaluation

<div style="text-align:right">(circle one)</div>

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:

Final Rotation Evaluation Key
(Final evaluation form is on reverse side)

Key*:

1ˢᵗ Rotation
(3) Far exceeded	–	Performed >8 different procedures at Level 3
(2) Satisfactory	–	Performed 8 different procedures at Level 3
(1) Minimally Met	–	Performed 6 – 7 different procedures at Level 3
(0) Did Not Meet	–	Performed 5 or less procedures at Level 3

2ⁿᵈ Rotation
(3) Far exceeded	–	Performed >11 different procedures at Level 3
(2) Satisfactory	–	Performed 11 different procedures at Level 3
(1) Minimally Met	–	Performed 9 – 10 different procedures at Level 3
(0) Did Not Meet	–	Performed 8 or less procedures at Level 3

3ʳᵈ Rotation
|		
(3) Far exceeded	–	Performed >12 different procedures at Level 3
(2) Satisfactory	–	Performed 12 different procedures at Level 3
(1) Minimally Met	–	Performed 10 – 11 different procedures at Level 3
(0) Did Not Meet	–	Performed 9 or less procedures at Level 3

*Please note: This key is to be used as a guide. Fulfilling the minimum requirements does not guarantee the grade listed above.

For any rotation that the student does not meet the minimum requirements, he/she must repeat that clinical rotation.
If any student is only minimally meeting the goals of the clinical rotation, the student and Clinical Coordinator should be notified before the last month of that clinical rotation.

SAINT LOUIS UNIVERSITY
MAGNETIC RESONANCE IMAGING PROGRAM

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.
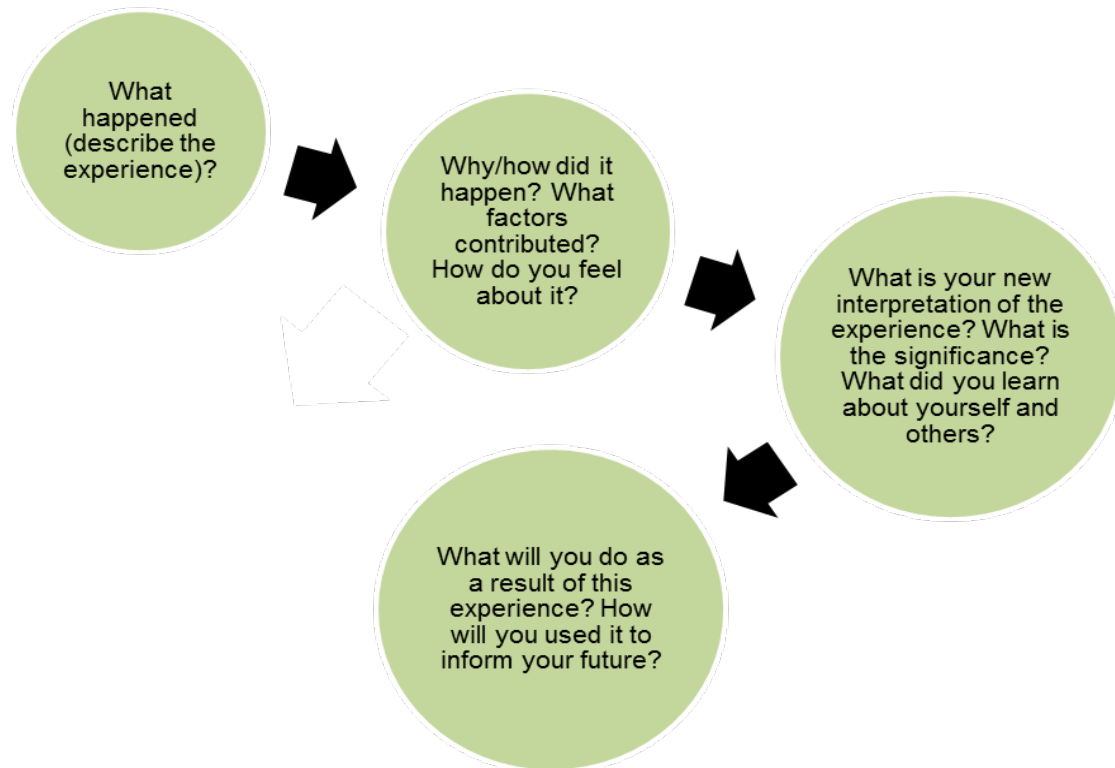
As another form of communication with program faculty, MRI students are required to make regular written comments and reflections on experiences in the clinical areas in a critical reflection/journal entry. These reflections should describe experiences in the clinic; they are not designed to be written 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.

Entries should be emailed to Marcey Kennedy at Marcey.kennedy@health.slu.edu by 11;59 pm on the due date. Entries are to be 1-2 pages in length, double spaced. With 1 inch margins. .

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For more information regarding the style and content of the reflection, please refer to the Critical Reflection Grading Rubric. 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.

Prompts for each critical reflection

Rotation 1: Due 2/6/2022

Jesuit Values
What are Jesuit Values?
How have you seen "Cura Personalis" reflected in the clinical setting?

Rotation 2: Due 4/3/2022

Professional characteristics of a MRI technologist
Provide examples of portrayal (good and bad) of the professional characteristics mentioned in your reflection.

Rotation 3: Due 5/24/2022

Ethical Dilemma
Have you witnessed an ethical dilemma or been involved in one personally during your time in the clinic? If not, please provide thoughtful comments on what good and bad ethics may be and how they would affect the profession and or others.

Rotation 4: Due 7/18/2022

Professional Development
Describe your progress as an MRI technologist. Think back to the first rotation and how you felt and compare to the fourth rotation as you are completing the program.

Entries are NOT to be written during clinical time.
Entries will NOT be shared with clinical personnel.

	0- Beginner	1-Developing	2-Accomplished (Reflections 1-4; Maximum Points Available = 10)	Comments	3-Advanced (Reflections 5-8 ; Maximum Points Available = 15)	Cc
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.	

Critical Self-Reflection Grading Rubric

Subtotal:	
*Less Grammatical Points :	
Total:	

* Grammar and Spelling (0-2 pt.) Deduction

CAPSTONE PAPER SCORE SHEET

STUDENT:_____

Paper should be investigative; with the student gathering data and or literature, analyzing it and coming to a conclusion. If the paper is informative only, take points off. Length should be 5-10 pages in length. APA format style of formatting, citation and reference should be used throughout the paper.

Did writer define objective of paper?   1 2 3 4 5 6 7 8 9 10 11 12 13 14 15

Adequate research done.   1 2 3 4 5 6 7 8 9 10 11 12 13 14 15

Was the paper investigative?   1 2 3 4 5 6 7 8 9 10 11 12 13 14 15

Grammar / punctuation / neatness   1 2 3 4 5

Length of paper   1 2 3 4 5

APA Format   1 2 3 4 5

Overall interest of subject.   1 2 3 4 5 6 7 8 9 10

Comments:

_____

_____

_____

Total Score: _____

Saint Louis University
Magnetic Resonance Imaging Program
Senior Capstone Presentations

May 4, 2022

Each student presentation is to be given a total score, which will be used to arrive at a grade for the independent project. Total score **should not exceed 20.** Please assign **whole numbers** using the following point scale:

| 5 = Excellent | 4 = Very Good | 3 = Average | 2 = Below Average | 1 = Poor |

Global: Was subject matter relevant and appropriate to the field of MRI?
Content: Did the student demonstrate understanding of the content subject matter?
Scientific Merit: Does subject matter possess scientific merit and demonstrate original thinking?
Presentation: Was the presentation/content well prepared and clearly presented?

	Global	Content	Scientific Merit	Presentation	Total
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____

_____
Evaluator

Student Presentation Evaluation Instructions:

*Note on scoring methodology: Grade on criteria as indicated below, from 1 to 5. Please use whole numbers.

5 = Excellent   4 = Very Good   3 = Average   2 = Below Average   1 = Poor

Evaluation categories below are listed in descending merit: 5 is highest, 1 is lowest.

A. <u>Project, global</u>:
5   Project was a basic or primary scientific analysis of a subject important to MRI performed using background, hypothesis, methods, data acquisition, analysis, discussion, conclusion
4   Project involved data gathering or surveys and involved analysis, but lacked one or more of background, hypothesis, methods, data acquisition, analysis, discussion, conclusion
3   Subject examined in only a descriptive manner, but discussed new methods or materials AND subject is relevant to MRI
2   Subject was a review of previous material familiar to the audience
1   Subject had little relevance to MRI and is of little merit

B. <u>Content:</u>
5   Excellent scientific paper, student demonstrates good understanding of MRI science. Has background, hypothesis/premise, methods, results, analysis, conclusion, all with good merit
4   Project reflects an understanding of science of MRI, has a good knowledge of the subject, presentation has hypothesis (or premise), methods, results, analysis, conclusion
3   Project shows some understanding of subject matter relevant to MRI, but only average in respect to methods, results, analysis, conclusion
2   Project has minimal relationship to MRI science, had minimal discussion or analysis hence, minimal understanding of subject matter
1   No discernable science presented, little understanding of MRI science, little or no discussion or analysis or rational conclusion

C. <u>Scientific Merit</u>
5   Project is of significant scientific merit and worthy of outside presentation or submission for publication
4   Project shows good merit, but lacks in complete novelty
3   Project demonstrates some originality and attempt at discovery, but somewhat lacks in its achievement due to effort or complexity of subject
2   Project was a good idea at the start, but failed to achieve its goals and better luck next time
1   Project unoriginal, generally plagiarized, lacking rational thought and best kept in a locked file

D. <u>Preparation and Presentation</u>
5   Student is well prepared and understands the subject matter; presentation is well-designed with no errors
4   Student is prepared but presentation is weak, i.e. rushed, too jocular, spelling errors
3   Student is only somewhat prepared and presentation is faulty (slides out of order, computer problems)
2   Presentation is marginal, subject matter obscure, images not relevant, audience restless and confused
1   Presentation put together with minimal effort, material uncoordinated, slides show unorganized

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