

Doisy College of Health Sciences Program-Level Assessment Plan

Program: Nuclear Medicine Technology	Degree Level (e.g., UG or GR certificate, UG major, master’s program, doctoral program): UG Major (BS)
Department: Clinical Health Sciences	
Date (Month/Year): July 2023	College/School: Doisy College of Health Sciences
	Primary Assessment Contact: Crystal Botkin

Note: Each cell in the table below will expand as needed to accommodate your responses.

#	Student Learning Outcomes What do the program faculty expect all students to know or be able to do as a result of completing this program? Note: These should be measurable and manageable in number (typically 4-6 are sufficient).	Curriculum Mapping In which courses will faculty intentionally work to foster some level of student development toward achievement of the outcome? Please clarify the level (e.g., introduced, developed, reinforced, achieved, etc.) at which student development is expected in each course.	Program Target	Assessment Methods		Use of Assessment Data 1. How and when will analyzed data be used by faculty to make changes in pedagogy, curriculum design, and/or assessment work? 2. How and when will the program evaluate the impact of assessment-informed changes made in previous years?	Timeline (any 12-month period is acceptable) <u>Example:</u> <i>Academic years ending in an odd number</i>
				Student Artifacts (What) 1. Which student artifacts will be used to determine if students have achieved this outcome? 2. In which courses will these artifacts be collected?	Evaluation Process (How) 1. What process will be used to evaluate the student artifacts, and by whom? 2. What tool(s) (e.g., a rubric) will be used in the process? Note: Please include any rubrics as part of the submitted plan documents.		
1	Students will demonstrate the Jesuit value of “Cura Personalis” as they perform diagnostic imaging procedures.	1-NMT 4700 NM Clinical Practicum I /Reinforced	1-An average of 85% of the students will achieve a ranking of “knowledge” or higher using the corresponding assessment rubric.	1- NMT 4700 NM Clinical Practicum I Critical Reflection Assignment #1	1-Data Collection/Analysis- NMT Faculty member- Assignment grading rubric and corresponding assessment rubric will be used to identify “knowledge” of” cura	Each year an annual program assessment report is created using data collected on the corresponding artifacts to provide details regarding the outcomes. This data will assist in the detecting areas where change in	Every academic year per JRCNMT accreditation standards.

		2-NMT 4800 NM Clinical Practicum II /Achieved	2-An average of 85% of the students will achieve a ranking of “application” or higher using the corresponding assessment rubric.	2- NMT 4800 NM Clinical Practicum II Observation notes and clinical evaluation completed by clinical preceptor(s) during the 2 nd rotation of clinical practicum (Feb-March each year).	personalis” 2-Data Collection/Analysis- NMT Faculty member- Faculty observation notes, clinical evaluations completed by clinical preceptor(s) and corresponding assessment rubric will be used to identify “application” of” cura personalis”.	assessment or pedagogy may be appropriate. If program targets are not met, program faculty and/or course instructor will identify specific ways to enhance the students understanding of the program learning outcome. These changes will be evaluated during the next review cycle. The NMT annual assessment report will be reviewed and compared to the previous year to assess the impact of previous changes.	Every academic year per JRCNMT accreditation standards.
2	Students will demonstrate effective communication when speaking with both patients and other healthcare professionals in the nuclear medicine department.	1-NMT 4960 Capstone in Nuclear Medicine/Developed	1-An average of 85% of the students will achieve a ranking of “application” or higher using the corresponding assessment rubric.	1-NMT 4960 Capstone in Nuclear Medicine NMT Capstone presentation and paper assignment	1-Data Collection/Analysis- NMT program faculty and clinical preceptor’s presentation evaluations based on the assignment grading rubric and the corresponding assessment rubric will be used to identify “application” of effective communication skills regarding healthcare professionals.	Same as PLO#1	Every academic year per JRCNMT accreditation standards.

		2-NMT 4900 NM Clinical Practicum III /Reinforced	2-An average of 85% of the students will achieve a ranking of “synthesis” or higher using the corresponding assessment rubric.	2- NMT 4900 NM Clinical Practicum III NMT program faculty observation notes during final comprehensive oral evaluation in the last rotation of the clinical practicum (Apr-May each year).	2-Data Collection/Analysis- NMT Faculty member- Faculty observation notes, knowledge assessment and corresponding assessment rubric will be used to identify “synthesis” of effective communication skills regarding patient interaction.		Every academic year per JRCNMT accreditation standards.
3	Students will use knowledge, facts, and data to assess problems and find solutions as they relate to nuclear medicine imaging and Computed Tomography (CT) procedures.	1-NMT 4350 Nuclear Medicine Information Systems/Developed 2-NMT 4430 Emerging Technologies/ Reinforced	1-An average of 85% of the students will achieve a ranking of “knowledge” or higher using the corresponding assessment rubric. 2-An average of 85% of the students will achieve a ranking of “application” or higher using the corresponding assessment rubric.	1-NMT 4350 Nuclear Medicine Information Systems Case Study Project Assignment 2-NMT 4430 Emerging Technologies Case Study Presentation	1-Data Collection/Analysis- NMT Faculty member- Assignment grading rubric and corresponding assessment rubric will be used to identify “knowledge” of facts and data used to assess nuclear medicine imaging procedures. 2-Data Collection/Analysis- NMT Faculty member- Assignment grading rubric and corresponding assessment rubric will be used to identify “application” of facts and data used to	Same as PLO#1	Every academic year per JRCNMT accreditation standards. Every academic year per JRCNMT accreditation standards.

					assess nuclear medicine imaging procedures.		
4	Students will demonstrate the ability to translate didactic knowledge into clinical practice as a nuclear medicine technologist.	<p>1-NMT 4000 NMT Procedures I /Introduced</p> <p>2-NMT 4340 NMT Procedures II /Developed</p> <p>3-NMT 4900 NM Clinical Practicum III /Achieved</p>	<p>1-An average of 85% of the students will achieve a ranking of “knowledge” or higher using the corresponding assessment rubric.</p> <p>2-An average of 85% of the students will achieve a ranking of “application” or higher using the corresponding assessment rubric.</p> <p>3-An average of 85% of the students will achieve a ranking of “synthesis” using the corresponding assessment rubric.</p>	<p>1-NMT 4000 NMT Procedures I Clinical Simulation/Role Playing assignment</p> <p>2-NMT 4340 NMT Procedures II Clinical Simulation/Role Playing assignment</p> <p>3- NMT 4900 NM Clinical Practicum III NMT program faculty observation notes during final comprehensive oral evaluation in the 4th rotation of clinical practicum (Apr-May</p>	<p>1-Data Collection/Analysis-NMT Faculty member-Assignment grading rubric and corresponding assessment rubric will be used to identify “knowledge” of translation of didactic knowledge into clinical practice.</p> <p>2-Data Collection/Analysis-NMT Faculty member-Assignment grading rubric and corresponding assessment rubric will be used to identify “knowledge” of translation of didactic knowledge into clinical practice.</p> <p>3-Data Collection/Analysis-NMT Faculty member-Faculty observation notes and corresponding assessment rubric will be used to identify “synthesis” of translation of didactic</p>	Same as PLO#1	<p>Every academic year per JRCNMT accreditation standards.</p> <p>Every academic year per JRCNMT accreditation standards.</p>

				each year).	knowledge into clinical practice.		
5	Students will exhibit professional characteristics expected of nuclear medicine technologists.	<p>1-NMT 4700 NM Clinical Practicum II /Developed</p> <p>2-NMT 4900 NM Clinical Practicum III /Achieved</p>	<p>1-An average of 85% of the students will achieve a ranking of “application” or higher using the corresponding assessment rubric.</p> <p>2-An average of 85% of the students will achieve a ranking of “synthesis” using the corresponding assessment rubric.</p>	<p>1- NMT 4700 NM Clinical Practicum II Clinical visit evaluation during the first rotation of the clinical practicum (Dec-Feb each year).</p> <p>2- NMT 4900 NM Clinical Practicum III Clinical visit evaluation during last rotation of clinical practicum.</p>	<p>2-Data Collection/Analysis-NMT Faculty member-Faculty observation notes, clinical evaluations completed by clinical preceptor(s) and corresponding assessment rubric will be used to identify “application” of professional characteristics of nuclear medicine technologists.</p> <p>2-Data Collection/Analysis-NMT Faculty member-Faculty observation notes, clinical evaluations completed by clinical preceptor(s) and corresponding assessment rubric will be used to identify “synthesis” of professional characteristics of nuclear medicine technologists.</p>	Same as PLO#1	<p>Every academic year per JRCNMT accreditation standards.</p> <p>Every academic year per JRCNMT accreditation standards.</p>

Additional Questions

1. On what schedule/cycle will faculty assess each of the program's student learning outcomes? (Note: It is not recommended to try to assess every outcome every year.)

The NMT program student learning outcomes will be assessed EVERY academic year per Joint Review Committee on Educational Nuclear Medicine Technology (JRCNMT) requirements.

The plan was updated again this year, as assessment tools were reorganized during the final course development for the new NMT courses created in the curriculum changes that took place in AY 2022-2023.

Please note the change in PLO #3.

2. Describe how, and the extent to which, program faculty contributed to the development of this plan.

This assessment plan was developed by the NMT faculty in consultation with the CHS department chair and the DCHS Associate Dean for Student Affairs. The NMT program faculty used the guidance documents from SLU's Assessment Committee along with the requirements from the JRCNMT to establish goals, targets, and rubrics.

IMPORTANT: Please remember to submit any rubrics or other assessment tools along with this plan.

Nuclear Medicine Technology Assessment Rubrics

****IMPORTANT NOTES:** The ratings, identified by the column headings below, are of increasing complexity moving across the table (from left to right). Students who can demonstrate Jesuit values as they perform diagnostic imaging procedures (that is, meet the “application” rating) must be able to first identify examples of Jesuit values (the “knowledge” rating). Likewise, for students to evaluate the use of Jesuit values (the “synthesis” rating), they must identify examples of Jesuit values (knowledge) and provide concrete evidence of the use of Jesuit values (application).

NUCLEAR MEDICINE TECHNOLOGY (NMT)		
Program Learning Outcome (PLO #1): Students will demonstrate the Jesuit value, “Cura Personalis” as they perform diagnostic imaging procedures.		
Knowledge**	Application**	Synthesis**
<ul style="list-style-type: none"> Define the Jesuit value of Cura Personalis. 	<ul style="list-style-type: none"> Examine circumstances in which Cura Personalis has been portrayed in their experiences in the clinical setting. 	<ul style="list-style-type: none"> Develop alternative actions in the use and/or non-use of Cura Personalis in the clinical setting.

Nuclear Medicine Technology Assessment Rubrics

****IMPORTANT NOTES:** The ratings, identified by the column headings below, are of increasing complexity moving across the table (from left to right). Students who can demonstrate effective communication in the form of scientific writing (that is, meet the “application” rating) must be able to first recognize examples of scientific research (the “knowledge” rating). Likewise, for students to compose a research paper through scientific discovery (the “synthesis” rating), they must recognize examples of scientific research (knowledge) and demonstrate scientific writing (application).

NUCLEAR MEDICINE TECHNOLOGY (NMT)		
Program Learning Outcome (PLO #2): Students will demonstrate effective communication when speaking with both patients and other healthcare professionals in the nuclear medicine department.		
Knowledge**	Application**	Synthesis**
<ul style="list-style-type: none"> Recognize the need to adjust conversations and explanations based on the audience. (i.e. use lay terms for patients and technical terms for other healthcare providers) 	<ul style="list-style-type: none"> Apply knowledge during senior capstone presentation and with patients in the clinic. 	<ul style="list-style-type: none"> Revise communication with patients in as they progress in the clinical setting.

Nuclear Medicine Technology Assessment Rubrics

****IMPORTANT NOTES:** The ratings, identified by the column headings below, are of increasing complexity moving across the table (from left to right). Students who can demonstrate critical thinking and problem-solving skills (that is, meet the “application” rating) must be able to first identify errors in an imaging case study (the “knowledge” rating). Likewise, for students to propose solutions to errors in an imaging cases study (the “synthesis” rating), they must interpret data presented in an imaging case study (knowledge) and demonstrate scientific writing (application).

NUCLEAR MEDICINE TECHNOLOGY (NMT)		
Program Learning Outcome (PLO #3): Students will use knowledge, facts, and data to assess problems and find solutions as they relate to nuclear medicine imaging and Computed Tomography (CT) procedures.		
Knowledge**	Application**	Synthesis**
<ul style="list-style-type: none"> Identify errors in an imaging case study presented. 	<ul style="list-style-type: none"> Interpret data presented in an imaging case study. 	<ul style="list-style-type: none"> Propose solutions to errors found in an imaging case study presented.

Nuclear Medicine Technology Assessment Rubrics

****IMPORTANT NOTES:** The ratings, identified by the column headings below, are of increasing complexity moving across the table (from left to right). Students who can relate fact and theory to nuclear medicine technology clinical practice (that is, meet the “application” rating) must be able to recall facts and theories in nuclear medicine technology (the “knowledge” rating). Likewise, for students to evaluate the use of fact and theories in nuclear medicine technology (the “synthesis” rating), they must recall facts and theories related to nuclear medicine technology (knowledge) and relate these facts and theories (application).

NUCLEAR MEDICINE TECHNOLOGY (NMT)		
Program Learning Outcome (PLO #4): Students will demonstrate the ability to translate didactic knowledge into clinical practice as a nuclear medicine technologist.		
Knowledge**	Application**	Synthesis**
<ul style="list-style-type: none"> Recall facts and theories relating to nuclear medicine technology. 	<ul style="list-style-type: none"> Relate facts and theory to the clinical practice of nuclear medicine technology. 	<ul style="list-style-type: none"> Evaluate the use of facts and theory of nuclear medicine technology in clinical practice.

Nuclear Medicine Technology Assessment Rubrics

****IMPORTANT NOTES:** The ratings, identified by the column headings below, are of increasing complexity moving across the table (from left to right). Students who demonstrate professional characteristics of a nuclear medicine technologist (that is, meet the “application” rating) must be able to define professional characteristics of a nuclear medicine technologist (the “knowledge” rating). Likewise, for students to integrate professional characteristics in into practice as a nuclear medicine technologist (the “synthesis” rating), they define professional characteristics of a nuclear medicine technologist (knowledge) and demonstrate professional characteristics of a nuclear medicine technologist (application).

NUCLEAR MEDICINE TECHNOLOGY (NMT)		
Program Learning Outcome (PLO #5): Students will exhibit professional characteristics expected of nuclear medicine technologists.		
Knowledge**	Application**	Synthesis**
<ul style="list-style-type: none"> Define professional characteristics of a nuclear medicine technologist. 	<ul style="list-style-type: none"> Demonstrate professional characteristics of a nuclear medicine technologist. 	<ul style="list-style-type: none"> Integrate professional characteristics into practice as a nuclear medicine technologist.