SAINT LOUIS UNIVERSITY.

Program-Level Assessment: Annual Report 2022-2023

Program Name (no acronyms): Radiation Therapy Program

Department: Clinical Health Science

Degree or Certificate Level: Baccalaureate

College/School: Doisy College of Health Sciences

Date (Month/Year): September 2023

Assessment Contact:

In what year was the data upon which this report is based collected? AY 2022-2023

In what year was the program's assessment plan most recently reviewed/updated? Plan updated in AY 2020-2021, Reviewed in AY 2021-2022

Is this program accredited by an external program/disciplinary/specialized accrediting organization or subject to state/licensure requirements? Yes, the program is accredited by the Joint Review Committee on Education in Radiologic Technology (JRCERT)

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.): The Assessment Plan and all 5 PLOs are required to be reported to the JRCERT annually. The timing of the assessment reporting is not affected.

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.)

Due to the Assessment Plan and Rubric covering the last AY (professional) year, and JRCERT accreditation requirements, the program learning outcomes are reviewed and assessed each year in their entirety. This process is necessary to accurately assess the interrelatedness and continuity of the learning objectives throughout the professional phase of radiation therapy and for accreditation reporting.

PLO #1-The radiation therapy student will be able to articulate ethical behaviors in clinical practice.

PLO #2- The radiation therapy student will evidence appropriate written communication for the profession of radiation therapy.

PLO #3 -The radiation therapy student will demonstrate complex radiation therapy treatment procedures.

PLO #4 - The radiation therapy student will present a complex radiation therapy treatment procedure to an audience.

PLO #5 - The radiation therapy student will demonstrate professional behaviors in the clinical setting.

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.

PLO # 1 a. **XRT 4320** Rad Therapy Practice I: Ethical Dilemma in-class exercise

b. **XRT 4420** Rad Therapy Practice II: Ethical Dilemma reflection paper

PLO #2 a. **XRT 4420** Rad Therapy Practice II: Clinical-Critical Reflection Paper

b. **XRT 4350** Clinical Practicum I: Poster Project Evaluation

PLO #3 a. **XRT 4440** Clinical Dosimetry Calculation Competencies

b. **XRT 4960** Capstone: Case Study presentation

PLO #4 a. **XRT 4420** Rad Therapy Practice II: In Class presentation

b. **XRT 4960** Capstone: Case Study presentation, rubric component #8

PLO #5 a. **XRT 4350** Clinical Practicum I & **XRT 4450** Clinical Practicum II: Linear Accelerator Clinical Rotation Performance Evaluation Attitude Assessment Section, Professionalism

b. **XRT 4450** Clinical Practicum II: Site Visit Evaluation Summary

No Madrid artifacts were included, no courses were offered on-line, and no courses were at other off-campus locations. NOTE: All artifacts are labeled and included in 2022-2023 XRT Artifact Description 1 & XRT Artifact Description 2

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).

For all measurement tools used to evaluate PLO's # 1-5:
Each course instructor was responsible for gathering results and data for each artifact appropriate to their course. The program director and clinical coordinator reviewed each artifact and the data pertaining to every student from that artifact. The data are recorded and compared to the previous years results in to either impart change or produce clarification. The data were then added to the program rubric and draft Program Assessment Plan and notes for change were recorded.

PLO # 1 a. **XRT 4320** Rad Therapy Practice I: Ethical Dilemma in class exercise. The instructor observed and reviewed presentations from this assignment for the student's ability to identify examples of ethical behaviors and articulate them in the clinical setting, based on the rubric for the assignment and the associated PLO rubric. See XRT Artifact Description 1 for assignment/rubric.

b. **XRT 4420** Rad Therapy Practice II: Ethical Dilemma reflection paper. The instructor evaluated the papers submitted based on the assignment description and rubric, and the associated PLO rubric, to evaluate the student's ability to describe ethical dilemmas and explain appropriate ethical behaviors in the clinical setting. See XRT Artifact Description 1 for assignment/rubric.

PLO #2 a. **XRT 4420** Radiation Therapy Practice II: Clinical-Critical Reflection Paper. The instructor evaluated the student's papers based on the assignment description and rubric, and the associated PLO rubric, to evaluate the student's ability to demonstrate effective written communication in radiation therapy, and to understand the components of a clinical critical reflection. See XRT Artifact Description 1 for assignment/rubric.

b. **XRT 4350** Clinical Practicum I: Poster Project. The instructor of the course and program director evaluated the student's posters, based on the assignment and the associated PLO rubric, for the student's ability to demonstrate appropriate written communication in the form of a research poster. See XRT Artifact Description 1 for assignment/rubric.

PLO #3 a. **XRT 4440** Clinical Dosimetry: Final Calculation Competencies. The course instructors evaluated this assignment, based on the assignment description, rubric and the associated PLO rubric, for the student's ability to identify and demonstrate components of a complex radiation therapy procedure by successfully completing the needed calculations. See XRT Artifact Description 1 for assignment/rubric.

b. **XRT 4960** Capstone: Case Study presentation. Both course instructors, the clinical coordinator and the program director, evaluated the student's capstone case study presentations for their ability to identify, demonstrate and summarize a complex radiation therapy treatment procedure by preparing and delivering a professional presentation of a case study in radiation therapy. See XRT Artifact Description 1 for assignment/rubric.

PLO #4 a. **XRT 4420** Rad Therapy Practice II: In Class presentation – The instructor of this course evaluated this assignment, based on the assignment description, rubric and the associated PLO rubric, for the student's ability to describe (recite), interpret component, and present a complex radiation therapy procedure to an audience of classmates and instructors. See XRT Artifact Description 1 for assignment/rubric.

b. **XRT 4960** Capstone: Case Study presentation, rubric component #8. Both course instructors, the clinical coordinator and program director evaluated the student's capstone case study presentations for their ability to identify and interpret a complex radiation therapy treatment procedure by preparing and delivering a professional presentation of a case study in radiation therapy to an audience of professionals. See XRT Artifact Description 1 for assignment/rubric.

PLO #5 a. **XRT 4350** Clinical Practicum I & **XRT 4450** Clinical Practicum II: Linear Accelerator Clinical Rotation Performance Evaluation, Attitude Assessment Section, Professionalism. The instructor of this clinically-based course, taken in the first or Spring semester of the professional year in radiation therapy, used linear accelerator rotation evaluations from clinical rotations in Spring and Summer semesters to evaluate the student's definition and demonstration of professional behaviors expected of a radiation therapist.
See XRT Artifact Description 1 & 2 for evaluation/rubric.

b. **XRT 4450** Clinical Practicum II: Site Visit Evaluation Summary - The instructor of this clinically-based course, taken in the final, Summer semester of the professional year in radiation therapy, used on-site clinical site visit evaluations to evaluate the student's synthesis of professional behaviors expected of a radiation therapist through their demonstration and integration of these behaviors into their clinical practice. See XRT Artifact Description 2 for evaluation/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 #1 a. **XRT 4320** Rad Therapy Practice I: Ethical Dilemma in class exercise – For this, 14/14 students received a grade of 15points out of 15 or 100% for this assignment, therefore the benchmark of >85% was met. When reviewing the rubric, this indicates that all students achieved a ranking of knowledge/application or higher. These data tell us that students reached above the rating standard of 85% or better assigned and the goal was met.

b. **XRT 4420** Rad Therapy Practice II: Ethical Dilemma reflection paper - For this PLO, 14/14 students received a grade of 10points out of 10 or 100% for this assignment, therefore the benchmark of >85% was met. When reviewing the rubric, this indicates that all students achieved a ranking of knowledge/application or higher. These data tell us that students reached above the rating standard of 85% or better assigned and the goal was met.

PLO #2 a. **XRT 4420** Rad Therapy Practice II: Clinical-Critical Reflection Paper - For this, 14/14 students received a grade of 10 points out of 10 or 100% for this assignment, therefore the benchmark of >85% was met. When reviewing the rubric, this indicates that all students achieved a ranking of knowledge/application or higher, a slight improvement of AY 21-22. These data tell us that students reached above the rating standard of 85% or better assigned and the goal was met

b. **XRT 4350** Clinical Practicum I: Poster Project – For this assignment, 14/14 students, or 100% earned a score of ≥ 85%; actual ave poster grade was 93%, therefore the benchmark of ≥ 85% was met.- When reviewing the rubric, this indicates that all students achieved a ranking of application/synthesis. These data tell us that students reached the rating standard assigned of a score of ≥85% and the goal was met.

XRT 4350 Poster Grades SP23

Student	Grade
1	86%
2	93%
3	91%
4	97%
5	91%
6	85%
7	96%
8	93%
9	85%
10	92%
11	97%
12	94%
13	90%
14	88%

Ave poster grade – 93% A

PLO #3 a. **XRT 4440** Clinical Dosimetry: Calculation Competencies – For this assignment, 14/14 students, or 100% earned a score of ≥ 85%; actual ave assignment grade was 93%, therefore the benchmark of ≥ 85% was met.- When reviewing the rubric, this indicates that all students achieved a ranking of knowledge/application or higher. These data tell us that students reached the rating standard assigned of a score of ≥85% and the goal was met.

XRT 4440 Clinical Dosimetry Calculations SP 23

Student	Calculations Comp
Points Possible	65
1	64/65 98%
2	63/65 97%
3	65/65 100%
4	61/65 94%
5	60/65 92%
6	65/65 100%
7	62/65 95%
8	65/65 100%
9	62/65 95%
10	65/65 100%
11	60/65 92%
12	60/65 92%
13	63/65 97%
14	65/65 100%

Ave score: 96.6% A

b. **XRT 4960** Capstone: Case Study presentation. – For this, an average of ≥85% of students (actual ave. grade 99%, 14/14 or 100%) of students achieved a ranking of application/synthesis. These data tell us that students reached the rating standard assigned.

Capstone Presentation SU 23

Points Possible 144

1	139.35/144	97%
2	142/144	99%
3	125.33/144	87%
4	144/144	100%
5	143.5/144	99%
6	127.3/144	88%
7	143.75/144	99%
8	142.3/144	99%
9	139.25/144	97%
10	144/144	100%
11	142.4/144	99%
12	143.75/144	99%
13	135.75/144	94%
14	124.55/144	87%

Ave capstone presentation grade: 96% A

PLO #4 a. **XRT 4420** Rad Therapy Practice II: In Class presentation - For this presentation project, 14/14 students, or 100%, earned 35/35 points with an average assignment grade 0f 100%, therefore the benchmark of ≥ 85% was met. When reviewing the rubric, this outcome indicates that all students achieved a ranking of application/synthesis or higher. These data tell us that students reached the rating standard assigned (a score of ≥85%) and therefore the benchmark goal was met.

b. **XRT 4960** Capstone: Case Study presentation, rubric component #8, Treatment Planning & Dosimetry: An average of ≥85% of students (actual ave. grade 100%, 14/14 or 100%) of students achieved a ranking of application/synthesis. These data tell us that students reached the rating standard assigned of ≥85% and the benchmark goal was met.

SU 23 Name	**Capstone rubric #8 treatment planning**
points	**6**
1	5.9
2	6
3	6
4	6
5	6
6	5.5
7	6
8	6
9	6
10	5.9
11	6
12	6
13	5.9
14	5.6

Ave score 5.9/6 98%

PLO #5 a. **XRT 4350** Clinical Practicum I & **XRT 4450** Clinical Practicum II: Linear Accelerator Clinical Rotation Performance Evaluation - Attitude Assessment Section: Professionalism. The question we chose from the performance evaluation identified student's professionalism in their clinical rotations, entered by clinical preceptors. This data provided a good picture of student performance and professionalism based on their clinical evaluations. With this assessment, ≥85% of 14 students scored a value 4 (95.6%) therefore all students achieved a ranking of application/synthesis. These data tell us that students reached the rating standard of ≥85% assigned and the benchmark was met.

46. II. STUDENT'S OVERALL BEHAVIORAL TRAITS

Average Score	Minimum | Maximum	Applicable Answers	Scale
3.96	3 | 4	68	1 to 4

Answer Value	Answer Choices	Answer Count	Percent of All Answers
0		0	0.00%
4	(6 points): The student proceeded professionally, competently and conscientiously and demonstrated a pleasant and positive attitude throughout the rotation.	65	95.59%
3	(4 points): The student demonstrated above average competency and demonstrated a pleasant and positive attitude throughout the rotation.	3	4.41%
2	(2 points): The student demonstrated average competency and demonstrated a pleasant and positive attitude throughout the rotation.	0	0.00%
1	*(0 points): The student was obviously satisfied with unsatisfactory and moderate efforts for below average performance. Re-evaluation required.	0	0.00%

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b. **XRT 4450** Clinical Practicum II: Site Visit Evaluation Summary – For this evaluation, students are given an oral exam during every one of their clinical sites visit on a pre-determined topic. This score is the total grade of all clinical site visit oral exams. From these data, the average score for all 14 students combined was 78%, where 5/14 (38%) students earned an individual score of ≥85%. The benchmark of ≥85% was not met; only 38% of students achieved a

ranking of application/synthesis. This is a disappointing result as this is an indicator of higher ordered learning and an evaluation of application/synthesis in the clinical setting.

XRT 4450 CPII, Site Visit Evaluation Summary SU 23

Student	Grade
1	75%
2	93%
3	63%
4	90%
5	83%
6	40%
7	81%
8	88%
9	95%
10	75%
11	82%
12	85%
13	80%
14	58%
Average Score	**78%**

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 evaluation of these data tells us that the implementation of the measurement artifacts gives us data that is relevant to the outcome, providing data that is useful to identify specific areas of improvement at the course level, and will help improve the program overall.

PLO #1

a. This in class exercise allowed practical practice and application and analysis of ethical principles with cases provided. Students enjoyed this exercise. With the analysis of the in class ethical exercise, we believe it is a useful tool and we will continue to use it to assess this PLO. As we determined in AY 21-22, we will continue to use this exercise without edits. This topic and exercise include a topic that is provided across the curriculum and is especially applicable to clinical practice. We compared these results with clinical competency and evaluation results in ethics and determined that this is a useful tool in student success in this area.

b. This tool was implemented in AY 19-20. We have found that this is an objective assignment and easy to assess and will continue to use this assessment. An in-class ethical case review and a written assignment were writing skills were utilized, along with the application of ethics in the clinical area, we are achieving expected good outcomes in the area of ethical behaviors in clinical practice. AY 19-20 was the first year for this assignment to be used as a measurement tool, and although we reached our target outcomes in two assessment cycles, we will continue to monitor student outcomes using this tool and its implications across the curriculum and into the clinic.

Regarding PLO # 1, both tools (a. and b.) provide data to support that this PLO is being successfully met and students are learning to articulate ethical behaviors. Both tools have provided excellent outcomes, and both have met goals for PLO #1.

PLO #2

a. With the evaluation of the Clinical Critical Reflection papers in this course, it was evident from the data that added instruction on the clinical critical reflection assignment components has continued to be useful in improving outcomes. Students showed the expected improvement in writing skills as a reflection, and have maintained good outcomes. Reflection allowed for more in depth thinking and the application of writing skills. We believe it is a useful tool and we will continue to use it to assess this PLO. There is no need to review this assignment or corresponding evaluation rubric at this review.

b. Evaluation of the poster project provided data that tell us that students are doing as expected with this project, using sources and knowledge from multiple courses across the curriculum. With the complexity of this project, the students demonstrated a higher level of comprehension and improved research skills and presentation skills. We will continue to pursue ways to provide professional communication and educational experiences. Note that for XRT 23-24, the poster project will be moved from XRT 4350 Clinical Practicum I to XRT 4420 Principles and Practice of Radiation Therapy II in order to accommodate a change course grading scheme for Site Visit Evaluations in XRT 4350, necessitating an edit to the Assessment Plan.

Regarding PLO # 2, both tools (a. and b.) provide data to support that this PLO is being successfully met and students are in fact demonstrating appropriate written communication for the profession. Both tools have provided excellent outcomes, and both have met goals for PLO #2.

PLO #3

a. The assignment for XRT 4440 Clinical Dosimetry was implemented in 20-21, AY 22-23 is the third cycle in using this tool. This tool is used to further evaluate synthesis in the area of complex radiation therapy treatment planning and procedures. This assignment evaluates the complex calculations used in treatment planning and demonstrates the student's ability to synthesize knowledge gained in the calculation component in radiation therapy treatment planning. Three years of data are telling us that students are doing well with the complex calculations involved with radiation therapy treatment procedures. Although we reached our target outcome, we will continue to monitor student outcomes using this tool and make adjustments to the assignment if necessary, although no changes are suggested for this next AY.

b. Using the capstone presentation rubric as the measurement tool, these data tell us that students are doing better than expected with the capstone project, continuously improving their research skills, and professional communication/presentations skills in presenting a patient case analysis. The capstone presentations are offered to the professional community – they are registered with the professional society in order to provide continuing education credits to practicing radiation therapists. This Capstone project is the highest level of presentation that our students can attain. We are pleased with the outcome of this activity as it also demonstrates skills and knowledge attained across the professional curriculum into one project. We will continue to pursue ways to provide professional communication and educational experiences. There is no need to review this assignment or corresponding evaluation rubric at this review.

Regarding PLO # 3, both tools (a. and b.) provide strong data to support that this PLO is being successfully met and students are understating, demonstrating, and presenting complex radiation therapy treatment procedures. Both tools have provided excellent outcomes, and both have met goals for PLO #3.

PLO #4

a. In XRT 4420, an in-class presentation is used to evaluate this PLO. We added this activity (in class presentation) to evaluate the student's ability to preset a complex treatment plan. From data collected, we found that students did very well with this presentation, and it is an excellent first activity to prepare them for further mastery in presentation skills for their senior level Capstone presentation. This project is evaluated by the program director, who is the course instructor. Although we reached our target outcome, we will continue to monitor student outcomes in this PLO using this tool.

b. For the Capstone presentation, the rubric was changed for AY 19-20 to provide more detail on the rubric component #8 to assess a more specific outcome, that is the understanding of a complex radiation therapy treatment procedure. As mentioned earlier, using the capstone presentation rubric # 8 in the area of treatment planning as the measurement tool, these data tell us that students are doing better than expected in the understanding of treatment planning, in addition to continuously improving their research skills, and professional communication/presentations skills in presenting a patient case analysis. Overall, where the in-class presentation to the clinical coordinator and myself in XRT 4420 was the first important presentation project for the students, the Capstone allowed the students to improve upon their skills and present to an

audience of themselves and professionals in the field as well. We are pleased with the outcome of this activity as it also demonstrates skills, knowledge and masterly attained across the professional curriculum into the area of treatment planning. We will continue to pursue ways to provide professional communication and educational experiences. There is no need to review this assignment or corresponding evaluation rubric at this review. Although we reached our target outcome, we will continue to monitor student outcomes using this tool.

Regarding PLO # 4, both tools (a. and b.) provide strong data to support that this PLO is being successfully met and students are understating, demonstrating and presenting complex radiation therapy treatment procedures to an audience. Both tools have provided excellent outcomes, and both have met goals for PLO #4.

PLO #5

a. For In clinical courses XRT 4350 and XRT 4450, in AY 19-20, we began entering all clinical evaluation and competency data into a new on-line clinical tracking platform (eValue), and continue to use this platform to summarize data and report data. This platform is much more efficient in drawing data from the identified measurement tools. In AY 20-21, 21-22 and 22-23 we were able to accurately run specific data reports on the indicators we wished to measure, specifically student professionalism, for this PLO. The question we chose from the performance evaluation identified student's professionalism in their clinical rotations, entered by clinical preceptors. This data provided a good picture of student performance and professionalism based on their clinical evaluations, and useful for measuring outcomes of PLO #5. We have been reviewing the eValue reports and the summary of data and, even though we reached our target outcome, we will continue to monitor student outcomes using this platform.

b. In addition to clinical performance evaluations used as measurement tools, we determined that Site Visit Evaluation Summaries taken from the summer semester (XRT 4450) Clinical Practicum II course would be assessed. For this evaluation, students are given an oral exam during every one of their clinical sites visit on a pre-determined topic. This score is the total grade of all clinical site visit oral exams and is a good tool for professional certification exam preparation. From these data, the average score for all 14 students combined was 78%, where 5/14 (38%) students earned an individual score of >85%. As mentioned, is a disappointing result as this is an indicator of higher ordered learning and an evaluation of application/synthesis in the clinical setting. This indicates that changes in the application of this assignment, the delivery of material, the weight of the scoring, and the communication of student expectations. For XRT 23-24, the poster project assessed in PLO #2(b) will be moved from XRT 4350 Clinical Practicum I to XRT 4420 Principles and Practice of Radiation Therapy II to accommodate a change course grading scheme for Site Visit Evaluations in XRT 4350, necessitating an edit to the Assessment Plan. and significance of this knowledge to the students for their professional success be changed in the future.

Regarding PLO # 5, both tools (a. and b.) provide strong data to support that this PLO is being successfully evaluated; data from (a) demonstrates professional behaviors in the clinical setting but is not demonstrated in (b). The tools used in both (a) and (B) provided the information we needed to assess this PLO, and indicated to us that changes must be made in the site visit evaluation method, scoring and communication of student expectations.

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

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

How will assessment data will be used- Faculty members associated with each action item will examine it in the context of the associated courses or program as a whole. Review of course evaluations and course related documents is included in the review process, along with the assessment of every PLO. After review, if changes are warranted, a plan for implementation is created and assigned to the faculty member responsible.
When will analyzed data be used for change– Program faculty members review and discuss the results and findings of each assessment cycle early in September, in a dedicated assessment review meeting. Student data is not available until early-August as that is when they complete the courses, clinicals and requirements of the

program. After assessment, action items are identified as appropriate.
How does the program evaluate the impact of assessment related changes? –They are discussed and evaluated during the annual faculty assessment meeting. If a negative impact is noted, an action plan is formulated, otherwise there will be no action.

When does the evaluation of the impact of assessment related changes occur? – During the annual faculty assessment meeting.
The results and Program Assessment Plan draft are also shared with the Radiation Therapy Program Advisory committee, who received the Program Assessment Report with all data attached at an annual meeting and discussion is held with further analysis.
Using Advisory Committee analysis and approval, a summary of all final PLO's, data (using rubrics attached in Artifact Description 1 and 2) and corresponding conclusions were recorded on the final Assessment Plan in by the Program Director and the Clinical Coordinator. If a negative impact is noted, an action plan is formulated, otherwise there will be no action.

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.

We continue to collect data and evaluate results based on the current assessment plan, however an assessment plan change is planned for XRT 23-24. The poster project assessed in PLO #2(b) will be moved from XRT 4350 Clinical Practicum I to XRT 4420 Principles and Practice of Radiation Therapy II to accommodate a change in course grading scheme for Site Visit Evaluations in XRT 4350.
As a result of not having met the benchmark (>85%) in PLO #5 (b), we will make the following changes in the Site Visit Evaluation grading scheme:

1. The student must achieve > 75% average score for all site visit evaluations for both clinical courses, XRT 4350 and XRT 4450 in order to successfully pass the clinical courses.
2. The student must achieve > 75% average score for each individual site visit evaluation and oral exam.
3. If the student is not prepared for the oral examination and evaluation at the time of the site visit, the student will receive a grade of 0% and will be given another evaluation exam that must be completed with a > 75% average score.
4. The Site Visit Evaluation grade will be weighted as 25% of the overall clinical courses – XRT 4350 Clinical Practicum I and XRT 4450 Clinical Practicum II. This is up from 20% of the total grade.

Making these changes to the grading scheme of the Site Visit Evaluations and the necessary change in the course where Poster projects are evaluated (as a result of these changes) will convey to students the importance of the Site Visit Evaluation in terms of overall clinical course and the need for them to be prepared for the oral exam and Site Visit Evaluation. Students will be made aware that our data indicates that success on site visit evaluations are a good indicator of successful ARRT registry exam results.

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**?

In examining past and current assessment data, it was determined that some measurement artifacts could be changed, expanded or added to the assessment plan. We changed tools/artifacts/ activities in 4 out of 5 PLOs in AY 19-20, to be implemented in AY 20-21, and AY 21-22 there will not be any changes for AY 22-23. Changes implemented in 20-21 allowed us to collect data that is more relevant to outcomes, providing data that will be useful to identify specific areas of improvement at the course level and improve the entire program. In addition, we are comparing the results of all measurement tools/activities used within each PLO to determine achievement within each PLO as a whole to provide an overall view of each PLO.

The most recent changes include the use of eValue clinical tracking software to help gather clinical outcomes for PLO #5, the addition of a new assignment for PLO #3 in XRT 4440 Clinical Dosimetry, and a new assignment in XRT 4420 Radiation Therapy Practice II to measure PLO #4.

PLO #1
With the analysis of the in class ethical exercise, we believe it is a useful tool and we will continue to use it to assess this PLO. There is no need to review this assignment or corresponding evaluation rubric at this review. The Ethical Dilemma reflection paper was added in 19-20. has been a useful tool. This exercise has a clear rubric that is easy to evaluate and use for data collection and is objective for evaluation.

PLO#3
In AY 19-20 it was determined that a new activity would be created and used to measure outcomes in this PLO. In AY 20-21 a new assignment in XRT 4440 Clinical Dosimetry was created that measured students ability to demonstrate complex radiation therapy treatment procedures, at the synthesis level, in the area of radiation therapy treatment planning and procedures. This assignment, clinical dosimetry – calculation competencies, is the measurement tool used for this purpose. This assignment has provided relevant data for measuring student outcomes in this PLO and will continue to be monitored, but not changed. We will continue to use Capstone Presentations as a measurement tool for this PLO in the future and not make any changes. This assignment continues to provide us with relevant data.

PLO #4
These data tell us the students are performing better than expected in the area of presenting a complex radiation therapy treatment procedure to an audience. It was determined that the addition of a different measurement tool, in the form of an in-class presentation in XRT 4420 Radiation Therapy Practice II, implemented in AY 20-21 was successful in providing data for this PLO and will continue its use to measure student success.

PLO#5
In clinical courses XRT 4350 Clinical Practicum I and XRT 4450 Clinical Practicum II, we found it difficult to gather data to measure this PLO and believed the results were too subjective from the identified measurement tools. In AY 20-21, in order to streamline data collection, we decided to collect data from the on-line clinical tracking software called eValue. Because the all student clinical evaluations and competencies are entered into eValue, it would be easier and more efficient to draw the data from the reports that eValue can produce. We will continue eValue to gather data and will not change the measurement tools.

The use of eValue has been useful tool for gathering and organizing data and evaluating program outcomes. We will continue to explore how we can use eValue reports and its analytics for future assessment reporting.

In AY 19-20, in addition to clinical performance evaluations used as measurement tools (gathered from eValue), it was determined that another evaluation should be added as a measurement tool: Site Visit Evaluation Summary in the XRT 4450 Clinical Practicum II course. This will give us an evaluation of the students overall clinical performance at a higher level and can be used to further evaluate professional behaviors in the radiation therapy student. We will continue to use this tool to measure the students overall clinical performance.

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

We have examined the data collected from these changes in 20-21, 21-22, and in 22-23. Since the changes were implemented in 20-21, we continue to gather data to compare and continue to assess the PLOs using the tools we have in place.

C. What were the findings of the assessment?

The specific findings of AY 22-23 are detailed in the response to 7.A. above. We have examined the data collected from changes in 20-21, and will continue to assess the changes and measurement tools used. Since we have met our benchmarks for all but PLO #5 (B), we will keep all the same for 23-24, except for planned changes for the clinical site visit evaluation methods and pedagogy, as outlined in 6 (B) above. For AY 23-24, the poster project will be moved from XRT 4350 Clinical Practicum I to XRT 4420 Principles and Practice of Radiation Therapy II to accommodate a change course grading scheme for Site Visit Evaluations in XRT 4350, necessitating an edit to the 23-24 Assessment Plan PLO #2(b).

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

The program faculty will continue to review all the PLO artifacts/measurement tools annually and identify opportunities to improve instruction, discussion, reflection, and evaluation, both at the course and at the programmatic level. We will especially take note of the changes made in PLO #5 (b) Site Visit Evaluations and examine in detail these improvements to evaluate if outcomes change as a result.

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.

XRT ArtifactDescription1 and XRT ArtifactDescription2 contain all measurement tools/artifacts used to assess the PLO 1-5 and corresponding student outcomes.

Note that the XRT Program Assessment Plan and Rubrics have not changed from AY 20-21

Adopted 2017, 2019, 2021. Next Review Fall 2023

Radiation Therapy Programmatic Mission:
The Radiation Therapy Program at Saint Louis University, Doisy College of Health Sciences is dedicated to preparing liberally educated, competent, caring and socially responsible Radiation Therapists, committed to clinical and scholarly excellence.

Radiation Therapy Program Goals and Learning Outcomes
Goal A: Radiation therapy students will be clinically competent

1. The radiation therapy student will position patients as directed in treatment record
2. The radiation therapy student will set treatment machine as indicated in patient treatment record
3. The radiation therapy student will practice patient confidentiality
4. The radiation therapy student practice proper radiation protection and safety

Goal B: Radiation therapy students will demonstrate problem solving and critical thinking skills

1. The radiation therapy student will demonstrate complex radiation therapy treatment procedures. **(DCHS PLO #3)**
2. The radiation therapy student will present a complex radiation therapy treatment procedure to an audience. **(DCHS PLO #4)**
3. The radiation therapy student will demonstrate appropriate problem solving skills for the practice of radiation therapy when provided with a case for analysis

Goal C: Radiation therapy students will demonstrate effective communication skills

1. The radiation therapy student will appropriately communicate with patients
2. The radiation therapy student will evidence appropriate written communication for the profession of radiation therapy **(DCHS PLO #2)**
3. The radiation therapy student will demonstrate proper presentations skills

Goal D: Radiation therapy students will demonstrate professional growth and development

1. The radiation therapy student will demonstrate professional behaviors **(DCHS PLO #5)**
2. The radiation therapy student will be able to articulate ethical behaviors in clinical practice **(DCHS PLO #1)**
3. The radiation therapy student will have knowledge of professional organizations
4. The radiation therapy student will demonstrate the concepts of compassionate care

Appendix to
Doisy College of Health Sciences Program-Level Assessment:
Annual Report for 2022-2023

Included in this document are all 10 measurement tools/artifacts used in the assessment of student outcomes.

PLO #1 a

XRT 4320 Principles of Radiation Therapy Practice I: Ethical Dilemma in class exercise

For the case you were presented, you and a partner complete the following chart for presentation to the class. The assignment is worth 7 points and evaluated according to the grading scale in the syllabus.

7 Steps for Ethical Decision-Making (worth 7 points)
1. Gather Relevant Information (*Step 1*) - Give a brief description of the pertinent facts for analyzing the case - Approx. 1 paragraph, 1 point
2. Identify the Type of Ethical Problem (*Step 2*) - Is it ethical distress or an ethical dilemma? 1 point
3. Use Ethical Principles /Approaches to Analyze the Problem (*Step 3*) - Which ethical principles are important in this case? Explain. - Are there conflicts? If so, does one principle or value have greater priority? Explain. 1 point
4. Identify the Stakeholder and Key Decision-Makers - Who are all the people that will be affected by the decision? - Who should be the primary decision-maker and why? 1 point
5. Explore the Practical Alternatives (*Step 4*) What are the possible decisions or actions? - Discuss the pros and cons, possible harms or benefits of the different choices. - Are there other alternatives? 1 point
6. What Should be Done? (Complete the Action – *Step 5*) - After working through the above steps, explain what you recommend should be done in this case – should be based on a well-reasoned ethical determination. 1 point
7. Personal Reflections, outcomes – (Step 6) - What are your personal thoughts about this case? - Do you have any personal experiences that shape your understanding of this case? - Has this case changed the way you look at situations such as this? - What would you want if you were in this situation? Or if you were one of the health care providers in this case? - Is there anything you could do to prevent or avoid these types of situations? 1 point

PLO #1 b

XRT 4420 Principles of Radiation Therapy Practice II: Ethical Dilemma Reflection Paper

Ethics Paper, worth 10 points**:** This assigned reflection paper is to be on an ethical situation you have observed during your clinical rotation. In your reflection please write on the following:

- **Describe a situation that you believe to be an ethical issue. This can be an expansion of one ethical situation that you have already submitted as a journal entry.**
- **Identify the person by role (anonymously – patient, family, MD, nurse, therapist, etc) who is involved as a stakeholder in the unethical behavior. Identify who is the decision maker.**
- **Describe the ethical principles/values involved.**
- **What do you think is the best course of action to resolve this issue and why.**
- **Describe the follow up to the situation, or if there is one planned.**

It is to be at least two to three double spaced pages in length, 12 point font, with proper writing style, grammar and spelling. This paper is worth **10 points** and is evaluated based on the grading scale included in the course syllabus.

PLO # 2 a.

XRT 4420 Principles of Radiation Therapy Practice II: Clinical-Critical Reflection Paper

Final Clinical Critical Reflection Paper, worth 10 points:

Your final assignment/entry will be a **critical reflection paper**. The reflection should be about your clinical experiences so far; for example, perceptions, general observations, technology or accomplishments, and how your classroom learning ties back to your clinical experiences.

Again, use the provided diagram/illustration and think about answering the questions: What? Now What? So What? The intent of this paper is to draw from the clinical experiences you have written about in your journal and discussion posts during the semester.

This assignment is to be at least two to three double spaced pages in length, 12-point font, with proper writing style, grammar and spelling. This paper is worth **10 points.**

PLO #2 b

XRT 4350 Clinical Practicum I Project
Clinical Project: Research Poster

Purpose The purpose of this project is to *research and inform* about new technologies and /or procedures in Radiation Therapy used to treat cancer

Introduction

One of the most important skills that a technical person must develop to become successful is to communicate effectively the essence of his/her work in an extraordinarily short time and/or small space. Further, increasingly professional meetings are expanding the number and scope of their "poster sessions" as one method of increasing the technical content of the meetings; hence this is a skill that will have practical applications for many new technical professionals.

These posters are viewed by a variety of people including other students, therapists, visitors, faculty and staff of the University. This audience views these posters and attends various presentations to learn more about the topics presented. The topic of the poster project in this case is meant to be informational and research driven.

Topic Assignment

Each student is to design and create a poster using the criteria outlined below, including all the listed required elements. The objective is to research and present information to the target audience about new treatment technologies, treatments performed in other countries or controversial treatment used in radiation therapy to treat cancer. Your research can show how the treatment can alter a diagnosis or patient outcomes. The subject matter should be pertinent to Radiation Therapy, Medical Physics, and be of original thought. Posters that are purely reviews of devices, equipment, or therapy products will not be accepted. You need to research, teach and educate your audience.

Topics must be presented in such a way that explains why they are pertinent to radiation therapy and the treatment of cancer (i.e., using Cyberknife to treat brain tumors). The poster must explain how the devices or treatment types are used a/or implemented in the treatment of cancer and the value of such treatment. All topics must be approved by program faculty. Each student must present on a different topic, so sign up and approval are required prior to initiating your project.

Target Audiences

There are three target audiences for the posters. The first priority is other undergraduate students and radiation therapists, as discussed in the previous paragraph. The second priority is visitors to the University, as also described in the previous paragraph. It should be remembered that many of these visitors are extremely knowledgeable in one or two health care related areas, but they are not experts in all facets of radiation therapy. Finally, the third priority is the lay public who may view the posters for various reasons.

Literature Review (previously completed)

To help determine your project topic, a literature review must be completed. If you change your topic from the original literature review submitted, you MUST complete a new literature review.

The purpose of a lit review is to identify the problem – including the significance of that problem, develop question(s) and hypothesis or hypotheses, develop methodology and anticipate discussion. Your lit review will be used to write your abstract and design your poster.

When identifying your topic and preparing your thesis, underline the important words/concepts in your thesis statement to use as search terms. For example: What are the primary etiological factors that contribute to the development of medial tibial stress syndrome?

The following is a 10 minute video that provides information on how to write a literature review: http://www.lib.ncsu.edu/tutorials/lit-review/ You will need to find high quality journal or peer reviewed articles for your project that are timely, no older than 5-8 years from publication date. Most journals in **PubMed** and **Scopus** are peer-reviewed; other data bases have a check box for "Peer Reviewed" journals. You can "google" the journal name to find its peer review status. For off-campus access to SLU Library databases (from home), use your SLU Net ID and password. Other databases to try: Medline, Ovid, CINAHL.

To find the full text article in the database search results, click on the FIND IT @ SLU icon. It will take your to (step 1) the full-text of the article (if available) or (step 3) the ILLiad Digital Document Delivery system. There is not charge to students for requesting articles through ILLiad. To sign up for your ILLiad account, go to http://illiad.slu.edu/illiad/LTL/logon.html. Check the bibliography of a "good" article to find other relevant references. New technologies can be backed up with case studies. A total of at least 3-4 articles that are no older than 5-8 years from publication date must be reviewed for the literature review. This literature review is assigned and completed prior to the poster assignment and is worth 30 points total.

Other General Poster Information
When designing your poster, use the project rubric and the outline provided, prepare a poster that will be viewed by the target audience. Please include abstract, diagrams, charts, descriptive materials, technical factors, photos or any graphics that may be of interest to the audience. In addition, you must cite any reference material and graphics. The **AMA style** of writing must be used for citations and writing style.

Your completed poster, that has been done on your computer, must be emailed to the instructors, on the date scheduled by the instructor, which will be prior to printing. This will be the version that is graded! Suggestions for edits will be given prior to the final printing.

The poster needs to be printed out to professional size, either 24 x 32 **or** 32 x 40, formatted in either landscape or portrait, whichever you prefer. Poster printing services are available on SLU campus and that is where you will have your posters printed. Remember that your poster should be of a quality that will allow it to be presented at various professional and University sponsored events. Instructions on how to make the poster using your computer and power point slides will be provided.

Posters in general should use brief and to-the-point word descriptions. Graphics and photos add interest to the poster and at least 4 of these must be included on the poster, one of which **you must create** yourself. These graphics must be cited appropriately below the graphic as well as in the reference section.

At least 5 accurate facts relating to the topic are required to be included on the poster, seven for a score of excellent in that category. Make sure the font sizes are large enough that the labels on the poster can be read from a distance of 2 feet. The title should be able to be viewed from a distance of at least 4 feet.

OUTLINE OF REQUIRED RESEARCH POSTER CONTENT

1. Project Title (Required)

The title of the project should be descriptive but reasonable in length and should be creative and easily read from 4 feet away.

2. Author's Name (Required)

Name, professional credentials and his\her academic major must be provided on the poster. (for example, Kathy Kienstra, MAT, R.T.(R)(T), Radiation Therapy Program), along with the Saint Louis University name. Remember if you are an RT (R), include that with your name.

3. Abstract (Required)

The abstract for the project shall be included on the poster. The purpose of the abstract is to describe the topic and provide a short overview of the project, similar to an objective. A good abstract should have a beginning, middle and end.

It should include:

- A statement of context defining the general purpose of the project. Do not use the words "the purpose of this **poster**…"
- A statement defining the specific topic explored
- A brief description of the research\approach used to gather information
- A summary and conclusion of what the topic is and why this is important.

Remember that the abstract should be brief but explanatory. It should be **150-175 words**, and written in paragraph form, not in bullet points. This document must be labeled as "Abstract" on the poster.

4. Project Acknowledgments (Optional)

If a person, and/or other organization(s) have contributed significant assistance in the form of technical advice, equipment, or financial aid, etc., a brief acknowledgment of this contribution shall be included in a separate section, or under references. If the sponsor(s) is either a student or a faculty member, the acknowledgment is not necessary.

5. Project Introduction (Required)

This section clearly states the topic, purpose, or defines the problem that is addressed. It describes its relevance to practice, the audience, and presents relevant background material. This section must be labeled, in paragraph form and must not exceed a word count of 150 – 175 words.

6. Discussion\Body (Required – label each section of the poster as such)

This section contains significant information and support of the topic. All tables, graphics, photos and illustrations are contained here, in addition to references and citations. Materials, equipment needed, or process descriptions are also included here. Any reference to studies, research or information used from the literature must be cited!

7. Project Graphic Elements (Required)

The use of graphic elements should neatly and attractively illustrate the topic through examples, artwork, photos, tables, diagrams, flow charts, graphs, and other visual items. These illustrations must be easily viewed, original in their creativity, and related to the topic, making it easier to understand. The author should make these elements as original and creative as possible, with exceptional care used in their design. If required, sources of any

protected material must be cited or referenced below the graphic. The graphic should also be referred to in your text. The poster should be exceptionally neat and attractive in terms of layout, use of blank space, and design. This poster project must include at least 4 graphic elements, **one of which you make yourself.**

8. Conclusion\Project Results (Required)
This section draws conclusions supported by information or findings presented in the project. Knowledge gained by the author is identified. This knowledge is formed by the facts and processes included in the poster, and are obvious to the viewer. This section may also discuss areas or ideas for future improvement. This section must be labeled, in paragraph form and must be between 150 – 175 words.

9. Content\Accuracy (Required)
Five to seven accurate facts must be presented and displayed on the poster, seven facts on the poster gets an 'excellent' rating. These facts may be listed separately or incorporated in the other sections of the poster.

10. Poster Attractiveness (Required)
The poster should be attractive in terms of design, layout, neatness and use of blank space. The proper size must be used, either 24 x 36 **or 32 x 40,** formatted in either landscape or portrait, whichever you prefer. Creative use of colors and graphics is apparent, and blank space should be used to give the eyes room to rest. Take care to make sure no section headings are cut off and that there is equal spacing at the ends of your poster.

11. Grammar and Mechanics (Required)
The text of the poster must be free of grammatical errors, with correct capitalization, punctuation and spelling throughout. Paragraph form must be used for the abstract, the introduction and the conclusion. Do not exceed the word counts where indicated. Re-read, re-read, and re-read!! AMA writing style must be used for citations.

12. References\Citations (Required)

This section shall provide citations of sources of any protected material (text, photos, graphics) used in the project. Graphics must also be cited below the graphic. This section must be labeled. **AMA style must be used.**

13. Required Labeled Elements The following elements **must be labeled** on the poster: **Title and author's name (provided but not labeled), abstract, introduction, discussion, conclusion/results, references and acknowledgements (if included).**

Scoring and Grade Scale
Each section will be awarded 5 - 0 points as described in the attached rubric. The grading scale is as follows:

93-100	A
90-92	A-
87-89	B+
83-86	B
80-82	B-
77-79	C+
73-76	C

70-72	C-
65-69	D
<65	F

Points will be taken off for late submission (past the date the project was due) equivalent to 10% off of the total project points for every day it is late.

The previously assigned topic and literature review related to this poster is worth 30 points and is part of XRT 4320 Principles and Practice I course grade.
The entire poster will be graded based on the provided rubric and is worth 70 points, which is calculated as part of the XRT 4350 Clinical Practicum I course grade.

Clinical Project: RESEARCH POSTER RUBRIC

Name:_____
Poster Title: _____
Evaluator: _____

Date:_____

CATEGORY/ SCORE	5 Points (Excellent)	4 Points (Above Average)	3.5 Points (Acceptable)	0 Points (Unsatisfactory)
Abstract	Abstract included on poster **and** under separate cover. All elements listed are included. Very easy to read and understand, a clear topic is included. Word count of 150-175 is followed.	Abstract included on poster **and** under separate cover. Most elements listed are included. Can be improved by organization, but not difficult to read. Topic is Clear, word count is followed.	One of the 2 required abstracts is missing. Not all required elements listed are included. Difficult to follow and understand. Grammar and mechanics errors. Topic vague. Word count not followed.	Abstract unacceptable or missing. Required elements are not included. Difficult to understand and\or follow. Grammar and Mechanics errors. Topic is unclear. Word count not followed.
Poster Graphics-Number	At least 4 required graphics are included, one is made by author.	At least 3 graphics are included, one is made by author.	At least 2 graphics are included. One may or may not be made by author.	1 or less graphics are included.
Poster Graphics - Clarity	All Graphics are clear and in focus and the content easily viewed and identified from 4 ft. away.	Most graphics are in focus and the content easily viewed and identified from 4 ft. away.	Most Graphics are clear and in focus, some content is too small or not clear.	Many graphics are not clear, in focus or too small.
Poster Graphics - Originality	Several of the graphics used on the poster reflect an exceptional degree of student creativity in their creation and/or display.	One or two of the graphics used on the poster reflect student creativity in their creation and/or display.	The graphics are not original, and are completely based on the designs or ideas of others.	No graphics made by the student are included.

CATEGORY/ SCORE	5 Points (Excellent)	4 Points (Above Average)	3.5 Points (Acceptable)	0 Points (Unsatisfactory)
Poster Graphics - Relevance	All graphics are related to the topic and make it easier to understand. All borrowed graphics have a source citation below the graphic.	All graphics are related to the topic and most make it easier to understand. All borrowed graphics have a source citation below the graphic.	All graphics relate to the topic. Most borrowed graphics have a source citation below the graphic.	Graphics do not relate to the topic OR several borrowed graphics do not have a source citation.
Poster Labels	All required items of importance on the poster are clearly labeled with labels that can be read from at least 2 ft. away.	Almost all items of importance on the poster are clearly labeled with labels that can be read from at least 2 ft. away.	Several items of importance on the poster are clearly labeled with labels that can be read from at least 2 ft. away.	Labels are too small to view or no important items were labeled.
Poster Required Elements (Introduction, Discussion and Conclusion/ Results)	The poster includes all required elements as well as additional information. When indicated, word count is followed, and formatting is correct.	All required elements are included on the poster. When indicated, word count is followed and formatting is correct.	All but 1 of the required elements are included on the poster. Word count or formatting are not followed.	Several required elements were missing. Word count or formatting are not followed.
Knowledge Gained	Knowledge gained from facts presented in the poster is described in detail in the conclusion section of the poster. It is obvious to the viewer that facts presented and knowledge gained are related and relevant to the topic.	Knowledge gained from facts presented in the poster is described in the conclusion section of the poster, although not obvious. With close inspection, facts presented and knowledge gained are related and relevant to the topic.	Knowledge gained from facts presented in the poster is vaguely described in the conclusion section of the poster. It is not clear that facts presented and knowledge gained are related and relevant to the topic.	No correlation between facts presented and knowledge gained in the poster is evident. The conclusion section of the poster does not contain this information.
Poster Content - Accuracy	Seven (7) or more accurate facts are displayed on the poster.	5-6 accurate facts are displayed on the poster.	3-4 accurate facts are displayed on the poster.	Less than 3 accurate facts are displayed on the poster.
Poster Attractiveness	The poster is exceptionally attractive in terms of design, layout, neatness, and use of blank space. Size of poster is correct. **(either 24x36 or 32x40)**	The poster is attractive in terms of design, layout and neatness and use of blank space. Size of poster is correct.	The poster is acceptably attractive though it may be a bit messy, or confusing to look at. Size of the poster is not correct.	The poster is distractingly messy or very poorly designed. It is not attractive. Size of the poster is not correct.
Poster Title & Author	Title can be read easily from a distance, is of appropriate size and is quite creative. Name, credentials and academic major included.	Title can be read from a distance and describes content well. Name, credentials and academic major included.	Title can be read, but can be enlarged, and describes the content. Name, credential, and\or academic major may be missing.	The title is too small and/or does not describe the content of the poster well. No name or major listed.

CATEGORY/ SCORE	5 Points (Excellent)	4 Points (Above Average)	3.5 Points (Acceptable)	0 Points (Unsatisfactory)
Poster Mechanics	Capitalization, spelling and punctuation are correct throughout the poster. Formatting and word count are followed where indicated.	There is 1-2 error in capitalization, spelling or punctuation. Formatting and word count are followed where indicated	There are 2-3 errors in capitalization, spelling or punctuation. Required Formatting and word count are not followed.	There are more than 3 errors in capitalization, spelling or punctuation. Required formatting and word count not followed.
Poster Grammar	There are no grammatical mistakes on the poster.	There is 1 grammatical mistake on the poster.	There are 2 grammatical mistakes on the poster.	There are more than 2 grammatical mistakes on the poster.
Poster References\ Citations	All references are given in correct APA format. (For CART, references should be submitted on a separate sheet of paper along with the student name and university).	Some references are included on the poster, some are missing, APA format is correct.	Few required references are included, APA format not consistently followed, or references are included but not on the poster.	No references are present on the poster or under a separate cover, and are obviously required per content, and\or APA format not followed.
TOTAL SCORE: (70 points possible)				

PLO #3 a.

XRT 4440 Clinical Dosimetry
Calculation Competencies and Review

Name_____

This assignment, as a final review of treatment planning, clinical dosimetry and calculations, will be counted as your final competency. It is to evaluate your ability to demonstrate your knowledge, application and synthesis of the components of a complex radiation therapy treatment procedures.

This assignment is worth **30 points,** based on the grading scale included in the syllabus. Using a separate sheet of paper to complete the calculations, **you must show all work.** Partial credit will be given if appropriate.

1. (2 pts) Find the equivalent square for a 12.5 x 26cm² field size:

2. (2 pts) Find the PDD for 6MV, 8.3 x 8.3cm² field size at 6cm depth:

3. (2 pts) Find the PDD for 6MV, 21.8cm^2 equivalent square field size at 10.8 cm depth.

4. (2 pts) A patient is treated with a 6MV linear accelerator at 100cm SSD. The collimator setting in 20x20cm. The field is blocked to 16x16cm. The patient receives a dose of 200cGy to a depth of 13cm for each fraction. What is the dose at Dmax?

5. (3 pts) A patient is treated on a 6MV linear accelerator at 100cm SSD. The prescription calls for a dose of 100cGy per fraction to dmax. The collimator setting is 15 x 15cm. What is the tumor dose, which is located at a depth of 10cm? What is the dose to cord at 15cm depth?

6. (2 pts) Write the wedge angle formula:

7. (2 pts) Write the gap calculation formula:

8. (2 pts) What is the new PDD at 8cm depth for a 100cm SSD 6MV 15 x 15cm treatment field if the SSD is changed to 80cm?

9. (2 pts) The given prescription is written to deliver 200cGy 3:2 AP/PA weighting:
   What is the dose from AP and the dose from PA?

10. (2 pts) A patient is treated with two adjacent posterior fields.
    Field 1 is 15cm² at 100cm SSD, Field 2 is 20cm² at 105cm SSD; both fields are 18MV.
    What is the skin gap required to abut fields at 5cm depth?

11. (3 pts) Calculate the GD and MU for the following SAD setup:

    18MV
    Collimator Setting: 20cm²
    Blocked Field Size: 18cm²
    Depth: 12cm
    TD: 180cGy

12. (3 pts) Calculate the GD and MU for the following SAD setup:

    18MV, TD = 220 cGy
    Collimator Setting: 16.5cm²
    Blocked Field Size: 14cm²
    Depth: 7cm
    Tray Factor: 0.96

13. (3 pts) What is the SSD if a patient is treated to a depth of 8cm from a single AP field using an SSD setup? What is it with an SAD setup?

PLO #3 b., PLO #4 b.

XRT 4960: Capstone in Radiation Therapy
CASE STUDY PRESENTATION PROJECT

Description:
Students are to choose one patient under treatment and complete a case study presentation. The student must follow one patient through all aspects of their course of therapy, document the process, and cover all aspects of the patient's treatment. This includes discussing the type of cancer, the initial consultation and options for treatment, through the simulation, dosimetry, and progressing through the course of treatment. Emphasis is placed on the particular cancer, site and technique chosen for treatment. This project offers the student the opportunity to put all aspects of radiation therapy together to see the total picture of the patient's course of treatment from beginning to end; gives the opportunity to practice good communication, speaking and presentation skills and the use of visual aids.
Students may use Health Sciences Library for research and resources. Copies of patient information may be used but **names and numbers must be blacked out**. Be sure to block out any identifying features from photos that you have included in your power point presentation. ***REMEMBER, all patient information must remain confidential***.

Objectives:
1. Choose 1 new patient that is scheduled for a consult and treatment. (this is where the student must begin).
2. Research information relevant to the patient's type of cancer, including history and physical, pathology, epidemiology, etiology, signs and symptoms, diagnosis, work-up, staging/grading, anatomy including lymph nodes, treatment options, complete treatment plan including simulation, and prognosis/survival rate.
3. Present information in a well-organized manner using good communication, speaking and presentation skills, in **no more or less than 30 minutes, including questions.** Engage your audience!
4. **Utilize your power point**. Make it interesting to the audience. Other types of visual aids (copies of films, copies of treatment plans, etc.) can also be used to enhance the presentation.
5. **Prepare 3-4 questions to ask the audience after your presentation.** The questions and answers must be handed in to the faculty as a separate handout at the time of the presentation.

PRESENTATION OUTLINE:
All case presentations **must follow the outline below** (and as described on the rubric) and should include the following information:

Selection of case: For your case, select a new patient who is scheduled to undergo radiation therapy treatment. The case can be a relatively simple technique or more complicated, i.e., those requiring complex planning such as IMRT, gaps, breast tangents, TBI, mantle, vertex, wedges, compensators, bolus, etc., but remember you want to keep the attention of your audience so make it interesting. Be sure to pick a case that you are interested in, so you can project your passion for the case to the audience. It is important to be obviously engaged in your topic.

1. **Start with an introduction of the patient, providing past medical history:** "This is a 63 yr. old white female who was diagnosed with Stage II adenocarcinoma of the left breast in January 2007."

   This section should also include the signs and symptoms that brought the patient in for medical attention, how long the symptoms had been present any contributing factors (i.e., smoker, alcohol abuse, family history, obesity, etc.).

During the consultation, describe the interactions you observed between the patient and the staff (doctors, nurses, support staff).

2. **Brief but complete background of the particular malignancy**:
   - etiology and epidemiology
   - pathology (discussed further below)
   - general signs/symptoms
   - work-up
   - staging (and grading if applicable, etc.)
   - prognosis
   - options for treatment
   - usual dose/fractionation
   - Use any Radiation Oncology textbook as a reference to assist you with this section. But be sure to reference your information here.

3. **Patient Workup**:
   - Lab reports, X-rays, Blood work, etc.
   - Why are these are performed?
   - If possible, you may show any relevant images (unidentified CT, MRI, PET, bone scans, etc.) that may be of interest to your audience.

4. **Diagnosis and pathology**:
   - The diagnosis should be found in the patient's chart. If not, ask the therapist or the physician to help you.
   - Discuss the pathology of your patient's disease.
   - A slide of the pathology at the cellular level should be included (histology)
   - Is there anything significant about the pathology relating to treatment options?

5. **Stage and grade:**
   - Find your patient's stage either in the history or ask the therapist or physician.
   - Discuss the stage of your patient's disease and how this stage affects treatment options.
   - If there is a grade, discuss it here.

6. **Anatomy and lymphatics:**
   - Discuss and show the relevant anatomy in and around the treated volume.
   - Be sure to discuss the LYMPH NODE DRAINAGE in this area!
   - And the critical structures (organs at risk).

7 **General treatment for this cancer:**
   - **a.** How is this type of cancer usually treated? How is this patient being treated?
   - **b.** Describe the role of surgery, medical oncology and XRT. Surgery/chemotherapy/radiation therapy – which one or a combination for this patient?
   - **c.** Discuss any other treatments – dietary, counseling, psychosocial?

8. **Radiation therapy, treatment plan and dose/fractionation**:
   - Discuss **IN DEPTH** the radiation therapy treatment plan – Why is this plan best for the patient? What is the technique? (IMRT, 3-fld., wedge-pr., POP, single field, etc.) If this is a protocol or clinical trial, explain.
   - Show the dosimetry plan and explain. Include the DVH and explain.
   - Discuss normal tissue tolerance and critical structures, including the TD 5/5 (whole or partial organ must be defined and endpoint).
   - Show and explain the different tumor volumes (GTV, CTV, PTV, TV, etc. if possible). Refer to the anatomy of the area.
   - Explain the prescription for treatment. What is the total tumor dose? Daily tumor dose? What type of fractionation is used? Is this radical or palliative treatment? Why? What energy is being used and why? Are wedges or other beam modifiers being used?

9. **Simulation procedure**:
   - Briefly describe the simulation of this patient, including beam modifiers constructed such as immobilization, or bolus. The entire step by step sim procedure does not need to be described.
   - Were there any difficulties with this set up?
   - If possible, provided that you can obtain sim films, explain field borders on the sim films.
   - If appropriate, you may provide unidentified copies of CTs or MRIs to show the gross tumor.
   - What type of simulation was performed?

10. **Treatment procedure:**
   - How did the set up go on the first day? Were there any shifts the first day?
   - Were there difficulties with the setup? How were they handled?
   - How long was the treatment time including set up?
   - Were the port films or EPIs consistent?
   - Explain treatment field borders.
   - What contributed to the success, or lack of, in reproducing this treatment setup everyday?
   - How did the patient handle the daily setup and treatment procedure?
   - What treatment charges were incurred?

11. **Patient's progress**:
   - Discuss the patient's progress through treatment – did they get reactions? If yes, what were they and how were they treated. (This information may be in the patient's chart, from the therapist or physician).
   - Take note of the patient's mental attitude or anything unusual. *Note: if the patient has only been under treatment for a short time, discuss what reactions may be expected.
   - If the patient has finished treatment by the time you present the case be sure to check the end notes from the last treatment to see how he tolerated treatment overall.
   - When will he come back for a follow-up?

12. **Prognosis**:
   - What is the prognosis for this patient?
   - What is the prognosis for this disease? What is the 5-year survival rate for this particular stage of disease?
   - What influences the prognosis?

13. **Psychological/Social**:

- How will the disease affect the patient's mental or psychological outlook?
- Will it affect body image? Lifestyle? Social Life?
- Ability to work and\or take care of the home and family?
- Will it affect relationships with others?
- Will leisure time be altered of affected?
- Note the QOL index, if defined.

14. Summary:

- *Must include personal reflections on the patient case.*
- What is the expected outcome of treatment?
- What is the follow-up plan? Please discuss patient progress if it is known.
- The presenter must state what was learned and why this case was chosen.
- Give an example of how compassionate care was demonstrated while treating your patient.

15. **References should be included on the PPT**.

- Have a reference slide, and it is nice to give an acknowledgement to the clinical site or staff that helped you with your presentation.

Your Power Point Presentation:

You must present the case in a well-organized manner. In your PPT presentation you must include graphics or visuals such as anatomy and lymph node drainage of the treatment are. You may ask the Dosimetrist to run a few different dosimetry plans using bolus, different wedges, different energies, etc. for comparison. It is good to include treatment plans, DVH, simulation films or port films. You will have **30 minutes (including your questions)** to present your case. You must hand in a copy of your PPT (and your scripted notes if you have them) to each of the instructors (2) prior to your presentation. It is a good idea to have copies of your presentation for your audience. *Practice your presentation!!*

Have **3-4 questions prepared** (more if you like) to ask the audience after your presentation. This will ensure they are listening to your presentation and understanding the important information. Be sure you can pronounce and define the meaning of all **terminology** used.

PPT Editorial tips:

- Make sure your opening slide has the title, your name, date.
- Double check the formatting on every slide, making sure that it is consistent on every slide.
- Make sure all information fits on your slide and that it is easily viewable.
- When using images make sure they are not too dark or blurry, if they are, do not use them.
- Check that all punctuation is consistent – remember the 'all or none rule.'
- Check all grammar, spelling, including medical words.
- If you can find it, add a slide of what the disease pathology looks like from the cellular level, under the microscope.
- Block out any information that may identify the patient from any documents, photos or plans.

Due dates

- Pay close attention to published due dates as you prepare to do your research and presentation. You will get points taken off if you fail to meet these deadlines. When possible, reminders will be sent, however **it is your responsibility to know these deadlines and meet them for full credit.**

- ***We will have a 'dress rehearsal' (part one) before the presentation (TBA) and you will be graded on the content of your presentation at this time. Presentation scores will be given the day of your presentation (part two).***
- ***Attendance is mandatory for both the dress rehearsal (part one) and the final presentation (part two).***
- The first draft of your PPT presentation is due prior to the dress rehearsal, at the time indicated by faculty. The final presentation is due on the Monday morning (by 10:00 am) before the presentation, however sometimes this date sometimes changes, so please make note of the date provided to you by faculty. The due date is the time that it *must be sent to the instructors via email*. Failure to meet this deadline will result in point reductions!
- FYI – you may be required to present your case to another outside audience prior to the final presentation date. This will be determined at a later time and communicated to you. It is possible that you may be graded for your presentation at that time, however faculty will inform you in advance.
- Be sure to be totally prepared the morning of the presentation. Bring your presentation on a flash drive, have two copies of your ppt presentation prepared for the faculty, and any other handouts you need copied and ready. Do not ask the faculty to make copies or edits to your presentation the day of the presentations. If you are not prepared, you will receive a point reduction in your grade.

Scoring and Grade Scale:
Each Section will be awarded 6 – 3 points as described on the attached rubric. The project is worth **144 points total**.

The grading scale is as follows:

A:	93-100%
A-:	90-92%
B+:	87-89%
B:	83-86%
B-:	80-82%
C+:	77-79%
C:	73-76%
C-:	70-72%
D;	65-69%
F:	<65%

Points will be taken off for late submission, past the due date, equivalent to 10% off the total project points for every day it is late. There will be no excused absences allowed for either dress rehearsal or presentation day. If you miss either of these days, you will receive zero points for that section.

IMPORTANT POINTS TO REMEMBER:
1. Don't wait until the last minute to work on your case. It will be obvious.
2. DO NOT DUPLICATE CASES. Confer with each other about your cases prior to submitting your topic so as not to present the same patient or same diagnosis.
3. Per the rubric, know that in addition to your presentation skills, you will be graded on the content, organization, scope and depth of your case presentation.
4. Be thorough. Give the entire picture of the patient's treatment.
5. If you don't understand something about the case, go to the patient's radiation oncologist and ask. He/she will be your best resource.

6. If a paper chart exists, DO NOT TAKE THE PATIENT CHART FROM THE DEPARTMENT! Make copies of any information you need. Block out the name and number on any copies.
7. Block out names or identifying features from plans, photos, scans or anything copied from the chart.
8. Make sure all information fits on your slide and that it is easily viewable.
9. When using images make sure they unidentified and are not too dark or blurry. If they are, do not use them.
10. Make sure pictures and illustrations are relevant.
11. Make sure you know what type of treatment the patient is receiving, not all treatments are considered IMRT, for example.
12. Do not work on this project during clinical time, unless approved by the Clinical Instructor, Clinical Coordinator or Program Director.

Presentations Tips

1. ***Practice*** your presentation; know how to pronounce all words used in the presentation. Practice projecting your voice. You will have a mic the day of your presentation.
2. Be animated: project enthusiasm and passion for your topic, use inflection in your voice. Make it obvious to the audience that you are engaged in your patient/topic.
3. Try not to read from every slide, it is nice to be able to know your information well enough to step away from the podium and talk to the audience rather than looking down and reading every word, thus avoiding eye contact with your audience.
4. After each section, pause and take a few breaths or take a sip of water. This gives the audience time to process the information, and helps you calm down.
5. Check your timing while you practice. It must be about 30 minutes with questions.
6. When discussing images, diagrams, anatomy, treatment beams etc., point out these areas using a pointer or mouse, don't say 'you can see where it is,' 'or it's right there.' We will provide a clicker so you can advance your slides and have a laser pointer handy.
7. Remember to pay attention to your appearance and please dress accordingly. This is an important presentation with an audience of professionals, so be professional in both your dress and demeanor.

CAPSTONE CASE STUDY EVALUATION FORM/RUBRIC

Student Name: _____ Date: _____
Evaluator:_____
Topic of Case Study:_____

The following scale will be used to score each section:
6 points: Excellent (A) **5 points:** Above Average (B) **4.5 points:** Average (C) **3 points:** Unsatisfactory (D\F)

Criteria Required: Case Study	Points (6- 3)
Content Evaluation: 1. **Introduction, History and Physical**: List patient information based on the History and Physical: Patient's age, occupation, other medical conditions, etc. **Be sure to give the patient a false name to protect their identity and block out any identifying features from photos included in your PPT.** Explain the common signs and symptoms associated with this disease and describe the symptoms the patient experienced. During the consultation, describe the interactions you observed between patient and staff (doctors, nurses, support staff)	
2. **Brief but complete background of the particular malignancy**: Include: etiology and epidemiology • pathology (discussed further below) • general signs/symptoms • work-up • staging (and grading if applicable, etc.) • prognosis • options for treatment • usual dose/fractionation • Use any Radiation Oncology textbook as a reference to assist you with this section. But be sure to ***reference*** your information here.	
3. **Patient Workup** • Lab reports, X-rays, Blood work, etc. • Why are these are performed? • If possible, you may show any relevant images (unidentified CT, MRI, PET, bone scans, etc.) that may be of interest to your audience.	
4. **Diagnosis and pathology**: • The diagnosis should be found in the patient's chart. • Discuss the pathology of your patient's disease. • A slide of the pathology at the cellular level should be included (histology) • Is there anything significant about the pathology relating to treatment options?	
5. **Staging/Grading:** • Find your patient's stage either in the history or ask the therapist or physician. • Discuss the stage of your patient's disease and **how this stage affects treatment options.** • If there is a grade, discuss it here.	
6. **Anatomy and Lymph nodes** • Discuss and show the relevant anatomy in and around the treated volume. • Be sure to discuss the LYMPH NODE DRAINAGE in this area! • And the critical structures (organs at risk).	

7. **General treatment for this cancer:** • How is this type of cancer usually treated? How is this patient being treated? • Describe the role of surgery, medical oncology and XRT. Surgery/chemotherapy/radiation therapy – which one or a combination for this patient? • Discuss any other treatments – dietary, counseling, psychosocial?	
8. **Radiation therapy, treatment plan and dose/fractionation**: • Discuss **IN DEPTH** the radiation therapy treatment plan – Why is this plan best for the patient? What is the technique? (IMRT, 3-fld., wedge-pr., POP, single field, etc.) If this is a protocol or clinical trial**,** explain. • Show the dosimetry plan and explain. Include the DVH and explain. • Discuss normal tissue tolerance and critical structures, including the TD 5/5 (whole or partial organ must be defined and endpoint). • Show and explain the different tumor volumes (GTV, CTV, PTV, TV, etc. if possible). Refer back to the anatomy of the area. • Explain the prescription for treatment. What is the total tumor dose? Daily tumor dose? What type of fractionation is used? Is this radical or palliative treatment? Why? What energy is being used and why? Are wedges or other beam modifiers being used?	
9. **Simulation procedure**: • Briefly describe the simulation of this patient, including beam modifiers constructed such as immobilization, or bolus. The entire step by step sim procedure is not required. • Describe any difficulties with this set up • If available, you may include unidentifiable sim set up pictures • If appropriate and available, you may include copies of CTs or MRIs to show the gross tumor. (make sure they are unidentified). • What type of simulation was performed?	
10. **Treatment procedure:** • How did the set up go on the first day? Were there any shifts the first day? • Were there difficulties with the setup? How were they handled? • How long was the treatment time including set up? • Were the port films or EPIs consistent? • Explain treatment field borders. • What contributed to the success, or lack of, in reproducing this treatment setup every day? • How did the patient handle the daily setup and treatment procedure? • What treatment charges were incurred?	
11. **Patient's progress**: • Discuss the patient's progress through treatment – did they get reactions? If yes, what were they and how were they treated. (This information may be in the patient's chart, from the therapist or physician). • Take note of the patient's mental attitude or anything unusual. *Note: if the patient has only been under treatment for a short time, discuss what reactions may be expected. • If the patient has finished treatment by the time you present the case be sure to check the end notes from the last treatment to see how he tolerated treatment overall. • When is follow up scheduled?	

12. **Prognosis**: • What is the prognosis for this patient? • What is the prognosis for this disease? What is the 5-year survival rate for this particular stage of disease? • What influences the prognosis?	
13. **Psychological/Social**: • How will the disease affect the patient's mental or psychological outlook? • Will it affect body image? Lifestyle? Social Life? • Ability to work and\or take care of the home and family? • Will it affect relationships with others? • Will leisure time be altered of affected? • Note the QOL index, if defined.	
14. **Summary** • *Must inculde personal reflections on the patient case.* • What is the expected outcome of treatment? • What is the follow-up plan? Please discuss patient progress if it is known. • The presenter must state what was learned and *why this case was chosen.* • Give an example of how compassionate care was demonstrated while treating your patient.	
15. **References Included on PPT**	
Presentation Evaluation: 16. **Preparation –** Was the presenter prepared to present the topic? Did the presenter have all materials available and ready on time? (flash drive, notes printed, copies of ppts ready before the time of presentation)	
17. **Presenter's engagement –** Did the presenter seem to be engaged in the case presented? Did he/she display compassion and a connection to the patient's case being presented?	
18. **Clarity of Presentation** – Was the presentation clear, concise, understood?	
19. **Organization of Material and Flow of presentation** – Was it in a logical progression with no hesitation from the presenter? Was the presentation rehearsed?	
20. **Technical competence** – General evaluation of public speaking principles: timing, materials, voice volume, eye contact, reaction to audience, audience engagement, passion for topic.	
21. **Professionalism –** Did the presenter appear professional in both appearance and demeanor?	
22. **Grammar and Punctuation on the PPT –** Was the final PPT free of errors?	
23. **General Overall Quality of Power Point Presentation**	
24. **Questions for the Audience and Answers prepared**	
144 points possible Total Time start: _____ (**not to exceed 30 minutes)** **Points awarded**	
GRADE	

Scoring and Grade Scale:
Each Section will be awarded 6 – 3 points as described on the attached rubric. The project is worth **144 points total**. The grading scale is as follows:

A:	93-100%
A-:	90-92%
B+:	87-89%
B:	83-86%
B-:	80-82%
C+:	77-79%
C:	73-76%
C-:	70-72%
D;	65-69%
F:	<65

Points will be taken off for late submission, past the date the project was due, equivalent to 10% off of the total project points for every day it is late.

PLO #4 a.

XRT-4420 RADIATION THERAPY PRACTICE II

Course Project: Clinical Oncology Didactic Presentation: Head and Neck Cancers

Due Date:_ _____

You and one other student will prepare a 20-25 minute presentation on a Head and Neck cancer topic, chosen from the list provided. Using the project rubric and the outline provided, you and another student are to prepare a power point presentation, to be presented to the class in order to **teach the topic**. **Handouts for the entire class and two faculty are required**. **You must email me your final PPT presentation on the morning of the due date, and you must provide me with two hard copies of your PPT presentation on the day of the presentation.** In addition, you must cite any reference material. It is suggested that you use Washington, and the *ACS Facts and Figures* and *Clinical Oncology* by Rubin (on Blackboard), or my course power points for reference material. Keep in mind that students may ask questions following your presentation. **Any handouts and a copy of the slides from your presentation must also be emailed to the instructor for inclusion on Blackboard.** *Remember the intent of this presentation is to **teach** these topics to your classmates!*

Attached is a rubric which includes all the elements required to successfully complete this project. Practicing your presentation is recommended because you will be graded on your presentations skills. **A total of 42 points are possible.**

These will be done in teams of two. Pick your partner(s) and choose your topic from the following list and notify me ASAP, first come, first served.
The topics are as follows

1. Paranasal Sinus and Salivary glands:
2. Hypopharynx & Larynx
3. **Oral Cavity**: Nasopharynx, floor of mouth and tongue
4. **Oral Cavity**: Hard Palate, buccal mucosa and retromolar trigone:
5. Oropharynx:

Outline\ content of presentation defined:

1. General Perspective of the disease
2. Quick Review of Anatomy and Lymphatics
3. Epidemiology & Etiology
4. Clinical Presentation
5. Detection and Diagnosis
6. Staging and General Grading
9. Prognostic Factors and Survival
8. Routes of Spread
10. Treatment Techniques\Results
11. Brief review of Radiation Therapy: Common Field Design, Portal Boundaries if applicable (include critical structures and tolerance doses)
12. Summary
13. Role of the Radiation Therapist

XRT-4420 RADIATION THERAPY PRACTICE II
Scoring Rubric for Clinical Oncology Didactic Presentation: Head and Neck Cancers

Name: _____Date:_____

Topic: _____

Evaluator:_____

The following scale will be used to score each section:
6 points: Excellent (A)
5 points: Well Developed (B)
4.5 points: Acceptable (C)
3 points: Unsatisfactory (D\F) (description of criteria for evaluation is attached)

Criteria Required	Points
1. Overall organization Comments:	
2. Clarity of presentation; was it easily understood? Comments:	
3. Did the presentation flow in a logical progression? Comments:	
4. Content (was the topic presented accurately and completely, following the outline provided) Comments:	
5. Quality of Power Point presentation (easy to follow, clear, diagrams included, references provided) Comments:	
6. Presentation Skills (Eye contact, posture, voice tone and quality, etc.) Comments:	
7. Handouts and\or teaching aids provided Comments:	
Total Points	
42 points possible **Ave Points/Final Grade**	

Grade Scale :

93-100	A
90-92	A-
87-89	B+
83-86	B
80-82	B-
77-79	C+
73-76	C
70-72	C-
65-69	D
<65	F

Points will be taken off for late submission (past the date the project was due) equivalent to 10% off the total points for every day it is late.

Criteria for Evaluation in an Oral Presentation

6 points: Excellent

In general well organized, detailed and well expressed. Consistently displays technical competence in this area in relation to principles of public speaking in choice of content, materials, methods and time frame. Is clear, concise, entertaining, attention grabbing, and worthwhile to attend. Flows well, with no hesitation from the presenter. Content is well-covered.

5 points: Well-Developed

Organized and moderately complete and integrated. Content is covered. May be difficult to follow in some aspects, but still follows principles of public speaking in choice of content, materials, methods and time frame. Attention to audience response and assessment of audience needs may need some development.

4.5 points: Acceptable

Communicates moderately well but displays 1-2 significant weaknesses: portions of the project are not addressed; details may be omitted, development is superficial; organization is fair; presentation is careless or difficult to follow, presenter appears not to be prepared, however visual aids are complete (power point)

3 points Unsatisfactory

Presentation is not complete and presenter is clearly unprepared. Presentation displays serious problems in development, methods, format and content. Significant weaknesses are obvious.

PLO #5 a., b. found in appendix 2

Saint Louis University
Radiation Therapy

Subject:
Evaluator:
Site:
Period:
Dates of Rotation:
Rotation: CP1 Linear Accelerator
Form: Site Visit Evaluation of Student

Site Visitor's Report: Assessment of student's progress and performance *(Question 1 of 7 - Mandatory)*

Recommendations for next visit *(Question 2 of 7 - Mandatory)*

Student comments: Procedures and comments on tasks at the clinical site *(Question 3 of 7 - Mandatory)*

Competencies Completed at Time of Visit *(Question 4 of 7 - Mandatory)*

Number of Evaluations Completed *(Question 5 of 7 - Mandatory)*

Clinical Site Concerns or Suggestions *(Question 6 of 7 - Mandatory)*

Points Awarded *(Question 7 of 7 - Mandatory)*

Saint Louis University
Radiation Therapy

Subject:
Evaluator:
Site:
Period:
Dates of Rotation:
Rotation: CP1 Linear Accelerator
Form: Clinical Preceptor Evaluation of Student

Please be frank and honest in reacting to the following statements regarding your opinion of the above student's overall clinical rotation performance. Check the appropriate responses.
Comments must be included in areas marked "Never"
Grade according to the following:
- * Does Not Show Entry Level Knowledge
- Sometimes Shows Entry Level Knowledge
- Has Mastered Entry Level Knowledge

(entry level being that of an entry level therapist, new graduate).

(Question 1 of 10 - Mandatory)

OVERALL ROTATION PERFORMANCE ATTITUDE ASSESSMENT	Always 4	Sometimes 2	Never 0	
Attitude: Is cooperative and receptive to suggestions and new ideas.	3.0	2.0	1.0	
Dependability: Is dependable on time or early, can be relied upon to complete clinical assignments.	3.0	2.0	1.0	
Initiative: Assumes full responsibility for actions, is willing and able to lend assistance to staff.	3.0	2.0	1.0	
Response to Supervision: Willing to take instruction, discipline, correction, guidance and direction.	3.0	2.0	1.0	
Patient Interaction: Establishes rapport with and gains confidence, cooperation of patients, communicates readily.	3.0	2.0	1.0	
Interpersonal Skills: Interacts well with department employees, is pleasant, courteous, friendly and tactful.	3.0	2.0	1.0	

Personal Attributes. Is positive and enthusiastic, shows initiative in performing assigned tasks.	3.0	2.0	1.0	
Clinical Applications Demonstrates accuracy and professional attributes when performing clinical procedures.	3.0	2.0	1.0	
Professionalism Assumes responsibility for actions and exhibits professional confidence and honest behavior at all times.	3.0	2.0	1.0	
Integrity: Ensures confidence of privileged information, and is honest and forthright at all times.	3.0	2.0	1.0	

OVERALL ROTATION PERFORMANCE ATTITUDE ASSESSMENT: Total will auto-populate *(Question 2 of 10 - Mandatory)*

(Question 3 of 10 - Mandatory)

OVERALL ROTATION PERFORMANCE PATIENT TREATMENT	Always Performs at Entry Level Graduate 4	Sometimes Performs at Entry Level Graduate 2	*Rarely Performs at Entry Level Graduate 0	
Prepares treatment room.	3.0	2.0	1.0	
Reviews chart/Record and Verify and films prior to preparing patient for treatment	3.0	2.0	1.0	
Greets and assists correct patient to and from treatment area. Includes verification of correct patient by 2 methods of identification	3.0	2.0	1.0	

Explains procedure and confirms patient understanding.	3.0	2.0	1.0	
Patient Set-Up Positions patient to reproduce set-up indicated in treatment chart practicing radiation protection and patient safety.	3.0	2.0	1.0	
Immobilizes patient.	3.0	2.0	1.0	
Uses appropriate beam modifiers.	3.0	2.0	1.0	
Positions treatment machine to reproduce set-up indicated in treatment chart.	3.0	2.0	1.0	
Rechecks set-up with set-up indicated in chart.	3.0	2.0	1.0	
Instructs patient to remain still during treatment.	3.0	2.0	1.0	
Closes door to treatment room.	3.0	2.0	1.0	
Treatment Machine Console Checks set up and treatment parameters on record and verify system.	3.0	2.0	1.0	

Sets appropriate controls on treatment machine console for patient treatment.	3.0	2.0	1.0	
Assists in activating machine to deliver prescribed dosage, with direct clinical preceptor/therapist supervision.	3.0	2.0	1.0	
Monitors patient visually and audibly.	3.0	2.0	1.0	
Monitors treatment machine console recording procedures.	3.0	2.0	1.0	
Records pertinent data in treatment chart, accurately and completely.	3.0	2.0	1.0	
Initials record entry, verify with clinical preceptor/therapist.	3.0	2.0	1.0	

OVERALL ROTATION PERFORMANCE PATIENT TREATMENT TOTAL. THIS WILL AUTO CALCULATE *(Question 4 of 10 - Mandatory)*

(Question 5 of 10 - Mandatory)

	(6 points): The student has mastered entry level comprehensive knowledge of basic and advanced concepts beyond requirements of set-up.	(4 points): The student demonstrates above average understanding of basic concepts applicable to the skill demonstrated.	(2 points): The student demonstrates adequate knowledge of the essential elements of the task performed.	The student has inadequate knowledge of even the basic concepts related to the task at hand. Student requires additional practice, re-evaluation required.
I. STUDENT'S COMPREHENSION OF SET-UPS	4.0	3.0	2.0	1.0

(Question 6 of 10 - Mandatory)

	(6 points): The student proceeded professionally, competently and conscientiously and demonstrated a pleasant and positive attitude throughout the rotation.	(4 points): The student demonstrated above average competency and demonstrated a pleasant and positive attitude throughout the rotation.	(2 points): The student demonstrated average competency and demonstrated a pleasant and positive attitude throughout the rotation.	*(0 points): The student was obviously satisfied with unsatisfactory and moderate efforts for below average performance. Re-evaluation required.
II. STUDENT'S OVERALL BEHAVIORAL TRAITS	4.0	3.0	2.0	1.0

Total for Sections I, II. This field will auto-populate. *(Question 7 of 10 - Mandatory)*

(Question 8 of 10 - Mandatory)

	(4 points): Student was dependable, was in attendance in the clinical area when expected, not tardy, and communicated absences, which was minimal.	(2 points): Student was noticeably absent or tardy from the clinical area on several occasions, however successfully completed the objectives of the rotation, communicated clearly the reason for the absence, and was responsible for information missed.	*(0 points): Student was noticeably absent or tardy from the clinical area on many occasions and made little or no attempt to communicate with the Clinical area. Student did not successfully complete all of the objectives of the rotation due to the experience missed while absent, and make up time is required.
III. STUDENT'S ATTENDANCE IN CLINICAL AREA	3.0	2.0	1.0

Comments/Areas for Improvement/Recommendations *(Question 9 of 10)*

Total for Section III . This field will auto-populate. *(Question 10 of 10 - Mandatory)*

CRITERIA AND OBJECTIVES FOR STUDENT'S OVERALL PERFORMANCE PATIENT TREATMENT (for page 4) Recurring task procedures are frequently occurring steps common to many of the procedures performed by a radiation therapist. Provided below is a list of these recurring procedures (as they appear on each evaluation form) and a description of exactly what constitutes satisfactory performance for that step. OBJECTIVE: After this rotation the student must be able to satisfactorily perform the following tasks in the manner described. DESCRIPTION OF SATISFACTORY TASK PROCEDURES PERFORMANCE Preparing treatment or examination Prepares and places linens on treatment room for use. table. Obtains necessary equipment and accessories to perform this set-up. Removes documents from the room as appropriate. Replaces used or displaced materials. Greeting and assisting correct patient. Confirms patient identity by 2 methods: - asks patient name - checking patient identity band. - ask patient birth date Introduces self by name and department. Assists and/or supports correct patient to or from wheelchair, stretcher, bed or table, etc. Escorts patients and/or from dressing rooms, treatment rooms and/or waiting areas. Explains procedure and confirms Informs patient of procedure to be performed. understanding. ** Explains the procedure by describing: - why it is to be performed. - how it is to be performed, - how frequently it will be performed; - importance of patient cooperation. Asks patient if there are any questions regarding procedures. TASK PROCEDURE DESCRIPTION OF SATISFACTORY PERFORMANCE Provides answers which are accurate and appropriate to patient's level of understanding. Preparing external beam treatment Reviews chart prior to preparing patient for a particular set-up. Prepares external beam treatment with appropriate treatment accessories. Carrying out simulation and/or set-up Review chart for correct positioning, parameters for any patient to receive external beam radiation therapy. Position patient as is described in treatment chart. Reassures the patient and attends to the patient's needs. Immobilizes patient for treatment as required. Sets out appropriate shielding or blocking for tissues to be spared, or selects appropriate beam modifiers. Check set up and treatment parameters on record and verify. Sets controls for prescribed dosage. Activates machine and administers correct radiation dosage, with direct supervision of clinical instructor/radiation therapist. Takes verification or localization films when necessary. Disassembles set-up and removes patient from treatment area. Practices radiation protection and patient safety. Records pertinent data in chart and Records the following data per departmental records.** procedure accurately and completely (where applicable, and may include); date, dose time or monitor units, prescribed total tumor dose versus total given dose. field size and any other pertinent observations or data (landmarks, etc.) Checks and reports calculation errors. Reports discrepancies and/or places for filing. Verifies entry with a preceptor. Signs entry with name. ** These task procedures may have legal implications and as such the educational program may decide to evaluate these through a simulation rather than actual clinical practice. CRITERIA FOR STUDENT'S COMPREHENSION OF SET-UP (for Section I, page 5) Demonstrates Comprehensive Knowledge: Always (range of 4) A. Readily transfers theoretical knowledge to all clinical situations. B. Grasps directions quickly and accurately. Displays outstanding use of judgment. C. Maintains exceptionally complete, accurate and concise records in accordance with departmental policy and procedures. D. Exemplary competence and resourcefulness in the utilization and care of equipment and supplies. Demonstrates Adequate Knowledge: Sometimes (range of 2) A. Can usually demonstrate how essential aspects of theory relate to specific clinical situations. B. Rarely requires repetition of explanations or referral to instructions; demonstrates good judgment in most situations. C. Usually maintains records which are satisfactory; occasionally makes minor errors or fails to make appropriate notations in chart. D. Exhibits satisfactory care and use of equipment in most situations. Demonstrates Inadequate Knowledge: Never (0) A. Exhibits superficial understanding of the application of theory in most clinical activities. Cannot integrate theoretical concepts with practical application. B. Requires re-explanation; has difficulty in making rational judgments, cannot be depended on. C. Is frequently careless in completing chart; commits many errors or is often inaccurate and incomplete. D. Often inefficient, or careless in use or maintenance of equipment. revised 11-2019

Revised 03-2013

First Attempt_____ **Term** _____**Comp #**_____

SAINT LOUIS UNIVERSITY

RADIATION THERAPY PROGRAM

LINEAR ACCELERATOR CLINICAL COMPETENCY FORM

Student: _____ Date: _____

Treatment Machine: _____ Evaluator: _____

Radiation Treatment Procedure: _____

Student to complete:

I. Site

II. Diagnosis

III. Stage

IV. Critical organs and dose tolerance

V. List alternative treatments

VI. Checklist **(Objectives)**

Objectives	Satisfactory	Un-Satisfactory	Not Applicable	**Comments**
1. Review chart prior to escorting patient in (have chart and/or films checked if necessary).				
2. Properly prepares room (table prepared, set correct F.S., use proper beam modifiers, treatment aids, and immobilization devices.				
3. Properly identify patient with at least 2 forms of identification.				
4. Assists patient to the treatment room and table.				
5. Explains procedure and confirms patient understanding.				
6. Properly positions patient on table, as indicated in the chart, with proper use of lasers and immobilization devices.				

LINEAR ACCELERATOR CLINICAL COMPETENCY FORM, Page 2

Objectives Port #	Satisfactory	Un-satisfactory	Not Applicable	Comments
7. Properly uses the pendant, demonstrating knowledge of all functions, as explained by therapist.				
8. Sets patient up as described in the chart, following instructions exactly, proper treatment aids and other immobilization devices used (touch up patient markings if needed).				
9. Set appropriate SSD or SAD.				
10. Verified set-up with therapist.				
11. Instructed patient to hold still, leave room and close door.				
12. Checked set up treatment parameters on record and verify system.				
13. Performs 2D or 3D image sets and accurately applies shifts (if not applicable, indicate N/A)				
14. Set appropriate controls on treatment machine console, verify with therapist.				
15. With direct supervision by therapist, activated machine to deliver prescribed dose.				
16. Monitored the patient - visual and audio.				
17. Recorded pertinent data in treatment chart or record and verify system with verification from the therapist.				
18. When the machine shuts off, verify the dose delivered with chart, record and verify system, and the therapist, initial when applicable.				
19. When the treatment is complete turn off machine, enter the room and lower the table carefully, rotating the gantry if necessary, again demonstrating proper pendant functions, and patient safety.				

Repeat steps 6-18 with additional ports to be treated (use additional columns provided).

Objectives	Satisfactory	Un-Satisfactory	Not Applicable	Comments
20. Remove any immobilization device from patient and assist the patient off of the table.				
21. Assist the patient out of the room, and verify the next day's treatment time and check-up day.				
22. Verify completed chart or record and verify system with therapist and put the chart in its proper place.				
23. Disassemble set-up, putting all treatment devices and equipment in its proper place.				

By signing below, I can attest that the student named has performed the Radiation Treatment Procedure documented above, and demonstrated appropriate:

1. Radiation Safety and environmental protection practices
2. Equipment operation and quality control/quality assurance
3. Patient and machine monitoring
4. Treatment verification and prescription verification (i.e. imaging procedures and other mechanisms)
5. Treatment volume localization
6. Consideration of dose to critical structures
7. Patient and machine setup
8. Record keeping
9. Patient assessment, care, management and education, with regard to age and pathology.

List and discuss possible side effects and complications associated with the treatment given:

_____

_____

_____

_____

_____

Overall Summary Performance of Procedure:

_____ **Satisfactory** - can now perform skill under direct clinical supervision.

_____ **Unsatisfactory** - requires additional clinical practice and **complete re-evaluation required**

Evaluator: _____ Date: _____
Signature

Student: _____ Date: _____
Signature

Radiation Therapy Program Assessment Data
AY: 2022-2023
Graduates: 14
DCHS PLO to be collected in RED

<table>
<tr><th>Learning Outcome</th><th>Measurement Tool</th><th>Data</th></tr>
<tr><td>Goal A: Students will be clinically competent
1. The radiation therapy student will position patients as directed in treatment record</td><td>1. Linear Accelerator Clinical Rotation Performance Evaluation, Patient Treatment Section, Ques 8: Positions treatment machine to reproduce set-up indicated in treatment chart.</td><td>
22. Patient Set-Up Positions patient to reproduce set-up indicated in treatment chart or simulation/dosimetry worksheet.
<table>
<tr><th>Average Score</th><th>Minimum | Maximum</th><th>Applicable Answers</th><th>Scale</th></tr>
<tr><td>3.00</td><td>3 | 3</td><td>11</td><td>1 to 3</td></tr>
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<tr><td>1</td><td>*Rarely Performs at Entry Level Graduate 0</td><td>0</td><td>0.00%</td></tr>
</table>
Time Series Freq Dist Pie Bar Horizontal Bar All
</td></tr>
<tr><td>2. The radiation therapy student will set treatment machine as indicated in patient treatment record</td><td>2. Linear Accelerator Clinical Rotation Performance Evaluation, Patient Treatment Section Question 13: Sets appropriate controls on treatment machine console for patient treatment.</td><td>
37. Sets appropriate controls on treatment machine console for patient treatment.
<table>
<tr><th>Average Score</th><th>Minimum | Maximum</th><th>Applicable Answers</th><th>Scale</th></tr>
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</table>
Time Series Freq Dist Pie Bar Horizontal Bar All
</td></tr>
</table>

<table>
<tr>
<td>3. The radiation therapy student will practice patient confidentiality</td>
<td>3. Linear Accelerator Clinical Rotation Performance Evaluation Section, Formative Scale Section Question 10: Ensures confidence of privileged information and is honest and forthright at all times.</td>
<td>
10. Integrity: Ensures confidence of privileged information, and is honest and forthright at all times.
<table>
<tr><th>Average Score</th><th>Minimum | Maximum</th><th>Applicable Answers</th><th>Scale</th></tr>
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<tr><td>2</td><td>Sometimes 2</td><td>0</td><td>0.00%</td></tr>
<tr><td>1</td><td>Never 0</td><td>0</td><td>0.00%</td></tr>
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Time Series Freq Dist Pie Bar Horizontal Bar All
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<tr>
<td>4. The radiation therapy student practice proper radiation protection and safety</td>
<td>4. Linear Accelerator Clinical Rotation Performance Evaluation, Patient Treatment Section, Question 5: Positions patient to reproduce set-up indicated in treatment chart, practicing radiation protection and patient safety.</td>
<td>
21. Patient Set-Up Positions patient to reproduce set-up indicated in treatment chart, practicing radiation protection and patient safety.
<table>
<tr><th>Average Score</th><th>Minimum | Maximum</th><th>Applicable Answers</th><th>Scale</th></tr>
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<td>Goal B: The students will demonstrate problem solving and critical</td>
<td></td>
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</tr>
</table>

thinking skills

1. The radiation therapy student will demonstrate complex radiation therapy treatment procedures. **(DCHS PLO #3)**

1.a. XRT 4440 Clinical Dosimetry: Calculation Competencies

XRT 4440 Clinical Dosimetry SP 23, ave score

Ave score: 96.6% A

Student	Calculations Comp
Points Possible	65
Counts, Iyanna	64/65 98%
Gale, Megan	63/65 97%
Gibbs, Jacqueline	65/65 100%
Heibel, Shelby	61/65 94%
Jahic, Elma	60/65 92%
Josan, Supreet	65/65 100%
Mantooth, Leah	62/65 95%
McDermott, Brenna	65/65 100%
Park, Seri	62/65 95%
Piva, April	65/65 100%
Senseney, Lindsey	60/65 92%
Sikes, Skylar	60/65 92%
Sturgis, Jessica	63/65 97%
Trombley, Ashley	65/65 100%

1.b. 2. XRT 4960 Capstone Case Study presentation

XRT 4960 XRT Capstone SU 2023

Student	Capstone Presentation	Capstone Presentation Grade
Points Possible	144	
Counts, Iyanna	139.35/144	97%
Gale, Megan	142/144	99%
Gibbs, Jacqueline	125.33/144	87%
Heibel, Shelby	144/144	100%
Jahic, Elma	143.5/144	99%

		Josan, Supreet	127.3/144	88%
		Mantooth, Leah	143.75/144	99%
		McDermott, Brenna	142.3/144	99%
		Park, Seri	139.25/144	97%
		Piva, April	144/144	100%
		Senseney, Lindsey	142.4/144	99%
		Sikes, Skylar	143.75/144	99%
		Sturgis, Jessica	135.75/144	94%
		Trombley, Ashley	124.55/144	87%
				Ave capstone presentation grade: 96% A
2. The radiation therapy student will present a complex radiation therapy treatment procedure to an audience. **(DCHS PLO #4)**	2.a. XRT 4420 Radiation Therapy Practice II: In class presentation	**Grades XRT 4420 Radiation Therapy Practice II Spring 2023**		

Name	**H & N**
	35
Iyanna Counts	35
Megan Gale	35
Jackie Gibbs	35
Shelby Heibel	35
Elma Jahic	35
Supreet Josan	35
Leah Mantooth	35
Brenna McDermott	35
Seri Park	35
April Piva	35
Lindsey Senseney	35

<table>
<tr><td></td><td></td><td>
<table>
<tr><td>Skylar Sikes</td><td>35</td></tr>
<tr><td>Jessica Sturgis</td><td>35</td></tr>
<tr><td>Ashley Trombley</td><td>35</td></tr>
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</td></tr>
<tr><td></td><td>2.b. XRT 4960 Capstone Case Study presentation, rubric #8</td><td>
<table>
<tr><th>Name</th><th>Capstone rubric #8 treatment planning</th></tr>
<tr><td>points</td><td>6</td></tr>
<tr><td>1</td><td>5.9</td></tr>
<tr><td>2</td><td>6</td></tr>
<tr><td>3</td><td>6</td></tr>
<tr><td>4</td><td>6</td></tr>
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<tr><td>7</td><td>6</td></tr>
<tr><td>8</td><td>6</td></tr>
<tr><td>9</td><td>6</td></tr>
<tr><td>10</td><td>5.9</td></tr>
<tr><td>11</td><td>6</td></tr>
<tr><td>12</td><td>6</td></tr>
<tr><td>13</td><td>5.9</td></tr>
<tr><td>14</td><td>5.6</td></tr>
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Ave score 5.9/6 98%
</td></tr>
<tr><td>3. The radiation therapy student will demonstrate appropriate problem solving skills for the practice of radiation therapy when provided with a case for analysis</td><td>3.a. XRT 4420 Ethical Dilemma Paper</td><td>
Grades XRT 4420 Radiation Therapy Practice II Spring 2023
<table>
<tr><th>Name</th><th>Ethics Paper</th></tr>
<tr><td></td><td>10</td></tr>
<tr><td>Iyanna Counts</td><td>10</td></tr>
<tr><td>Megan Gale</td><td>10</td></tr>
<tr><td>Jackie Gibbs</td><td>10</td></tr>
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</td></tr>
</table>

		Shelby Heibel: 10 Elma Jahic: 10 Supreet Josan: 10 Leah Mantooth: 10 Brenna McDermott: 10 Seri Park: 10 April Piva: 10 Lindsey Senseney: 10 Skylar Sikes: 10 Jessica Sturgis: 10 Ashley Trombley: 10
	3.b. XRT 4420 Course Discussion Board	**grades XRT 4420 Radiation Therapy Practice II Spring 2023** **Name** / **Dis Post**: **16** Iyanna Counts: 16 Megan Gale: 16 Jackie Gibbs: 16 Shelby Heibel: 16 Elma Jahic: 16 Supreet Josan: 16 Leah Mantooth: 16 Brenna McDermott: 16 Seri Park: 16 April Piva: 16

<table>
<tr>
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<tr><td>Lindsey Senseney</td><td>16</td></tr>
<tr><td>Skylar Sikes</td><td>16</td></tr>
<tr><td>Jessica Sturgis</td><td>16</td></tr>
<tr><td>Ashley Trombley</td><td>16</td></tr>
</table>
</td>
</tr>
<tr>
<td>Goal C: Students will demonstrate effective communication skills

1. The radiation therapy student will appropriately communicate with patients</td>
<td>1.a. Linear Accelerator Clinical Rotation Performance Evaluation, Formative Section, Question 5: Patient interaction: Establishes rapport with and gains confidence, cooperation of patients, communicates readily.</td>
<td>
<table>
<tr><td colspan="4">5. Patient Interaction: Establishes rapport with and gains confidence, cooperation of patients, communicates readily.</td></tr>
<tr><td>Average Score</td><td>Minimum | Maximum</td><td>Applicable Answers</td><td>Scale</td></tr>
<tr><td>2.94</td><td>2 | 3</td><td>68</td><td>1 to 3</td></tr>
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<tr><td>0</td><td></td><td>0</td><td>0.00%</td></tr>
<tr><td>3</td><td>Always 4</td><td>64</td><td>94.12%</td></tr>
<tr><td>2</td><td>Sometimes 2</td><td>4</td><td>5.88%</td></tr>
<tr><td>1</td><td>Never 0</td><td>0</td><td>0.00%</td></tr>
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<td></td>
<td>1. b. Employer Survey Question 8: ‘Speak so that clients or colleagues can understand the meaning of the message’</td>
<td></td>
</tr>
<tr>
<td>2. The radiation therapy student will evidence appropriate written communication for the profession of</td>
<td>2.a. XRT 4330 Clinical Critical Reflection Paper</td>
<td>Grades XRT 4420 Radiation Therapy Practice II Spring 2023

<table>
<tr><td>Name</td><td>Clinic reflection</td></tr>
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</tr>
</table>

radiation therapy. **(DCHS PLO #2)**

	Paper
Points possible	10
Iyanna Counts	10
Megan Gale	10
Jackie Gibbs	10
Shelby Heibel	10
Elma Jahic	10
Supreet Josan	10
Leah Mantooth	10
Brenna McDermott	10
Seri Park	10
April Piva	10
Lindsey Senseney	10
Skylar Sikes	10
Jessica Sturgis	10
Ashley Trombley	10

2.b. XRT 4350 Poster Project Evaluation

XRT 4350 SP2023 Poster Grades, Ave grade 93%

Student	Grade
Iyanna Counts	86
Megan Gale	93
Jackie Gibbs	91
Shelby Heibel	97
Elma Jahic	91
Supreet Josan	85
Lean Mantooth	96
Brenna McDermott	93
Seri Park	85

<table>
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<td></td>
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<table>
<tr><td>April Piva</td><td>92</td></tr>
<tr><td>Lindsey Senseney</td><td>97</td></tr>
<tr><td>Skylar Sikes</td><td>94</td></tr>
<tr><td>Jessica Sturgis</td><td>90</td></tr>
<tr><td>Ashley Trombley</td><td>88</td></tr>
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</table>
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</tr>
<tr>
<td>3. The radiation therapy student will demonstrate proper presentations skills</td>
<td>3. XRT 4980 Capstone Case Study Project rubric item: Technical Competence</td>
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Grades XRT 4420 Radiation Therapy Practice II Spring 2023
<table>
<tr><th>Name</th><th>Capstone rubric technical competence</th></tr>
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<tr><td>Jackie Gibbs</td><td>5.9</td></tr>
<tr><td>Shelby Heibel</td><td>6</td></tr>
<tr><td>Elma Jahic</td><td>6</td></tr>
<tr><td>Supreet Josan</td><td>5.6</td></tr>
<tr><td>Leah Mantooth</td><td>6</td></tr>
<tr><td>Brenna McDermott</td><td>6</td></tr>
<tr><td>Seri Park</td><td>6</td></tr>
<tr><td>April Piva</td><td>5.9</td></tr>
<tr><td>Lindsey Senseney</td><td>6</td></tr>
<tr><td>Skylar Sikes</td><td>6</td></tr>
<tr><td>Jessica Sturgis</td><td>5.5</td></tr>
<tr><td>Ashley Trombley</td><td>5.9</td></tr>
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Ave score 5.9/6 98%
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Goal D: Students will demonstrate professional growth and development

1. The radiation therapy student will demonstrate professional behaviors in the clinical setting **(DCHS PLO #5)**

1**a.** XRT 4350 & 4450 Clinical Practicum I & II: Linear Accelerator Clinical Rotation Performance Evaluation Attitude Assessment Section, Professionalism

46. II. STUDENT'S OVERALL BEHAVIORAL TRAITS

Average Score	Minimum | Maximum	Applicable Answers	Scale
3.96	3 | 4	68	1 to 4

Answer Value	Answer Choices	Answer Count	Percent of All Answers
0		0	0.00%
4	(6 points): The student proceeded professionally, competently and conscientiously and demonstrated a pleasant and positive attitude throughout the rotation.	65	95.59%
3	(4 points): The student demonstrated above average competency and demonstrated a pleasant and positive attitude throughout the rotation.	3	4.41%
2	(2 points): The student demonstrated average competency and demonstrated a pleasant and positive attitude throughout the rotation.	0	0.00%
1	*(0 points): The student was obviously satisfied with unsatisfactory and moderate efforts for below average performance. Re-evaluation required.	0	0.00%

Time Series Freq Dist Pie Bar Horizontal Bar All

1b. XRT 4450 Clinical Practicum II – Site Visit Evaluation Summary

XRT 4450 CPII, Site Visit Evaluation Summary SU 23

Student	Grade
Iyanna Counts	75%
Megan Gale	93%
Jackie Gibbs	63%
Shelby Heibel	90%
Elma Jahic	83%
Supreet Josan	40%
Lean Mantooth	81%

		Brenna McDermott 88% Seri Park 95% April Piva 75% Lindsey Senseney 82% Skylar Sikes 85% Jessica Sturgis 80% Ashley Trombley 58% **Average Score 78%**
2. The radiation therapy student will be able to articulate ethical behaviors in clinical practice. **(DCHS PLO #1)**	2.a. XRT 4320 Ethical Dilemma in class exercise	**XRT 4320 Principles and Practice I Fall 2022** Ethical Dilemma Case analysis Points possible **15 pts** Iyanna Counts 15 Megan Gale 15 Jacqueline Gibbs 15 Shelby Heibel 15 Elma Jahic 15 Supreet Josan 15 Leah Mantooth 15 Brenna McDermott 15 Seri Park 15 April Piva 15 Lindsey Senseney 15 Skylar Sikes 15 Jessica Sturgis 15 Ashley Trombley 15
	2.b. XRT 4420 Ethical Dilemma	**Grades XRT 4420 Radiation Therapy Practice II Spring 2023**

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<td>Reflection Paper</td>
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<table>
<tr><td>Ethical Dilemma Reflection Paper
Name</td><td></td></tr>
<tr><td>Points possible</td><td>10</td></tr>
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<tr><td>Megan Gale</td><td>10</td></tr>
<tr><td>Jackie Gibbs</td><td>10</td></tr>
<tr><td>Shelby Heibel</td><td>10</td></tr>
<tr><td>Elma Jahic</td><td>10</td></tr>
<tr><td>Supreet Josan</td><td>10</td></tr>
<tr><td>Leah Mantooth</td><td>10</td></tr>
<tr><td>Brenna McDermott</td><td>10</td></tr>
<tr><td>Seri Park</td><td>10</td></tr>
<tr><td>April Piva</td><td>10</td></tr>
<tr><td>Lindsey Senseney</td><td>10</td></tr>
<tr><td>Skylar Sikes</td><td>10</td></tr>
<tr><td>Jessica Sturgis</td><td>10</td></tr>
<tr><td>Ashley Trombley</td><td>10</td></tr>
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<tr>
<td>3. The radiation therapy student will have knowledge of professional organizations</td>
<td>3. XRT 4960 Capstone Course: 5 Year Professional Growth Plan</td>
<td>
XRT 4960 XRT Capstone SU 2023
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<tr><td></td><td>Five Year Professional Growth Plan</td></tr>
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<tr><td>Student</td><td></td></tr>
<tr><td>Counts, Iyanna</td><td>25</td></tr>
<tr><td>Gale, Megan</td><td>25</td></tr>
<tr><td>Gibbs, Jacqueline</td><td>25</td></tr>
<tr><td>Heibel, Shelby</td><td>25</td></tr>
<tr><td>Jahic, Elma</td><td>25</td></tr>
<tr><td>Josan, Supreet</td><td>15</td></tr>
<tr><td>Mantooth, Leah</td><td>25</td></tr>
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<tr><td></td><td></td><td>McDermott, Brenna 25
Park, Seri 25
Piva, April 25
Senseney, Lindsey 23
Sikes, Skylar 25
Sturgis, Jessica 25
Trombley, Ashley 25</td></tr>
<tr><td>4. Student will demonstrate the concepts of compassionate care</td><td>4. a. XRT 4330 Clinical Observation Paper</td><td>Grades XRT 4420 Radiation Therapy Practice II Spring 2023

<table>
<tr><th>Name</th><th>Clinic reflection Paper</th></tr>
<tr><td>Points possible</td><td>10</td></tr>
<tr><td>Iyanna Counts</td><td>10</td></tr>
<tr><td>Megan Gale</td><td>10</td></tr>
<tr><td>Jackie Gibbs</td><td>10</td></tr>
<tr><td>Shelby Heibel</td><td>10</td></tr>
<tr><td>Elma Jahic</td><td>10</td></tr>
<tr><td>Supreet Josan</td><td>10</td></tr>
<tr><td>Leah Mantooth</td><td>10</td></tr>
<tr><td>Brenna McDermott</td><td>10</td></tr>
<tr><td>Seri Park</td><td>10</td></tr>
<tr><td>April Piva</td><td>10</td></tr>
<tr><td>Lindsey Senseney</td><td>10</td></tr>
<tr><td>Skylar Sikes</td><td>10</td></tr>
<tr><td>Jessica Sturgis</td><td>10</td></tr>
<tr><td>Ashley Trombley</td><td>10</td></tr>
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