# MANDATORY COMPETENCY EVALUATION FORM



Student Name:_____ Date: _____

Evaluator Name: _____ Site: _____

This form is to be completed by the evaluator.

Evaluator: Please mark each task as P (pass), F (fail), or NA (not applicable). For mastery, the student must Pass in each Task listed below unless a specific task is determined N/A by the evaluator.

**The competency is a Fail and should be repeated by the student for mastery attainment if the plan is not treatable or unacceptable for treatment or has an error that makes a significant difference in the distribution. Documentation of a Failed competency should be submitted to the program for statistical analysis.**

| Task | Pass | Fail | N/A | Evaluator Comments |
|---|---|---|---|---|
| **1. The student completed the plan independently** | | | | |
| **2. Treatment Prescription followed** | | | | |
| **3. Isocenter/Calc Point Placement** | | | | |
| **4. Treatment structures identified (CTV, PTV, etc.)** | | | | |
| **5. Treatment structures covered adequately** | | | | |
| **6. Critical structures contoured (OAR, etc)** | | | | |
| **7. Critical structure doses appropriate** | | | | |
| **8. Hot spot placement** | | | | |
| **9. Beam angle selection** | | | | |
| **10. Treatment accessory devices appropriately utilized** | | | | |
| **11. Dose engine/algorithm appropriate** | | | | |
| **12. Heterogeneity appropriately selected** | | | | |
| **13. Appropriate Dose grid selection** | | | | |

**MANDATORY COMPETENCY EVALUATION FORM**



| Task | Pass | Fail | N/A | Evaluator Comments |
|---|---|---|---|---|
| **14. Image transfer/Fusion** | | | | |
| **15. Tx Couch contoured appropriately** | | | | |
| **16. Minor contours correct** | | | | |
| **17. Independent calculation performed (Hand calc., Computer MU Calc., etc.)** | | | | |
| **18. Record and Verify System information correct** | | | | |
| **19. Plan can be implemented clinically** | | | | |
| **20. Overall plan appropriateness acceptable** | | | | |
| **21. Overall plan quality acceptable** | | | | |
| **22. Student obtained plan approval from a certified medical dosimetrist or other credentialed practitioner as appropriate prior to treatment** | | | | |
| **23. Student obtained plan approval from physician** | | | | |
| **24. Planning time reasonable** | | | | |
| **25. Able to answer questions relevant to planning of case (cognitive evaluation)*** | | | | |
| **26. Interact with others in a mentoring/mentee role as appropriate (affective evaluation)** | | | | |
| **27. Courteous and professional behavior displayed (affective evaluation)** | | | | |
| **28. Virtual interaction/communication with others in a clinical capacity are appropriate and effective (affective evaluation)** | | | | |

**MANDATORY COMPETENCY EVALUATION FORM**



* Note: Examples of appropriate questions include the following:

1. What would be other possible treatment options for this clinical case?

2. What possible complications might the patient experience as a result of this treatment dose?

3. What are difficulties that the radiation therapist may experience when implementing this treatment plan?

4. What are some benefits of this particular treatment delivery modality, energy, beam arrangement, etc?

**Evaluator Comments:**

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**Student Comments:**

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_____ _____

**Student Signature** **Date**

_____ _____

**Evaluator Signature** **Date**

Exhibit A

**RTU Medical Dosimetry Educational Program Internship**

Mandatory Competency Evaluation Form Grading Rubric

The grading rubric below is designed to clearly identify expected behaviors for each item in the Mandatory Competency Evaluation Form. Evaluators are encouraged to include an explanation when an item is marked "N/A".

| Task | Pass | Fail | N/A |
|---|---|---|---|
| **1.The student completed the plan independently** | The student completed all work on the treatment plan working independently | The student did not complete all work on the treatment plan working independently | This item must be completed by the preceptor. N/A will result in student's failure of the competency. |
| **2. Treatment Prescription followed** | The student followed the prescription as written by the physician | The student failed to follow the prescription as written by the physician | This item is not applicable to this competency. |
| **3. Isocenter/Calc Point Placement** | The student placed the isocenter and/or calculation point properly for this plan based on accepted planning practice and patient anatomy | The student failed to place the isocenter and/or calculation point properly based on accepted planning practice and patient anatomy | This item is not applicable to this competency. |
| **4. Treatment structures identified (CTV, PTV, etc.)** | The student identified and segmented (contoured) treatment structures properly for this plan based on accepted planning practice and patient anatomy | The student failed to identify and/or segment (contour) treatment structures properly for this plan based on accepted planning practice and patient anatomy | This item is not applicable to this competency. |
| **5. Treatment structures covered adequately** | Treatment plan for the clinical case achieved adequate coverage of treatment structures (PTV, CTV, etc) according to clinical practice standards as specified by RTOG protocol, clinical protocol, and/or physician prescription. | Treatment plan for the clinical case failed to achieve adequate coverage of treatment structures (PTV, CTV, etc) according to clinical practice standards as specified by RTOG protocol, clinical protocol, and/or physician prescription. | This item is not applicable to this competency. |
| **6. Critical structures contoured (OAR, etc)** | The student identified and segmented (contoured) critical structures properly for this plan based on accepted planning practice and patient anatomy | The student failed to identify and segment (contour) critical structures properly for this plan based on accepted planning practice and patient anatomy | This item is not applicable to this competency. |
| **7. Critical structure doses appropriate** | Treatment plan for the clinical case achieved adequate coverage of critical structures according to clinical practice standards as specified by RTOG protocol, clinical protocol, and/or physician prescription. | Treatment plan for the clinical case did not achieve adequate coverage of critical structures according to clinical practice standards as specified by RTOG protocol, clinical protocol, and/or physician prescription. | This item is not applicable to this competency. |
| **8. Hot spot placement** | Treatment plan for the clinical case achieved placement of hot spot according to clinical practice standards as specified by RTOG protocol, clinical protocol, and/or physician prescription. | Treatment plan for the clinical case failed to achieve placement of hot spot according to clinical practice standards as specified by RTOG protocol, clinical protocol, and/or physician prescription. | This item is not applicable to this competency. |

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| **9.**<br>**Beam angle selection** | The student selected beam angles properly for this plan based on accepted planning practice and patient anatomy | The student failed to select beam angles properly for this plan according to accepted planning practice and patient anatomy | This item is not applicable to this competency. |
| **10.**<br>**Treatment accessory devices appropriately utilized** | The student selected treatment accessory devices (wedges, custom blocks, bolus, etc.) properly for this plan based on accepted planning practice and patient anatomy | The student failed to select treatment accessory devices (wedges, custom blocks, bolus etc.) properly for this plan according to accepted planning practice and patient anatomy | This item is not applicable to this competency. |
| **11.**<br>**Dose engine/algorithm appropriate** | The student selected the dose engine/calculation algorithm (e.g. Pencil Beam, AAA, Monte Carlo, etc.) properly for this plan based on accepted treatment planning practice | The student failed to select the dose engine/calculation algorithm (e.g. Pencil Beam, AAA, Monte Carlo, etc.) properly for this plan according to accepted treatment planning practice | This item is not applicable to this competency. |
| **12.**<br>**Heterogeneity appropriately selected** | The student utilized heterogeneity corrections properly for this plan based on accepted treatment planning practice | The student failed to utilize heterogeneity corrections properly for this plan according to accepted treatment planning practice | This item is not applicable to this competency. |
| **13.**<br>**Appropriate Dose grid selection** | The student ensured that the dose grid for the plan calculation was appropriate based on accepted treatment planning practice | The student failed to ensure that the dose grid for the plan calculation was appropriate according to accepted treatment planning practice | This item is not applicable to this competency. |
| **14.**<br>**Image transfer/Fusion** | The student performed image data set transfer and fusion (if required) properly for this plan based on accepted planning practice and patient anatomy | The student failed to perform image data set transfer and fusion (if required) properly for this plan based on accepted planning practice and patient anatomy | This item is not applicable to this competency. |
| **15.**<br>**Tx Couch contoured appropriately** | The student contoured the treatment/simulation couch properly for this plan based on accepted planning practice and patient anatomy | The student failed to contour the treatment/simulation couch properly for this plan | This item is not applicable to this competency. |
| **16.**<br>**Minor contours correct** | The student contoured any minor structures (e.g. carina, T-12, etc.) properly for this plan based on accepted planning practice and patient anatomy | The student failed to contour minor structures (e.g. carina, T-12, etc.) when needed or contoured them improperly for this plan | This item is not applicable to this competency. |
| **17.**<br>**Independent calculation performed (Hand calc., Computer MU Calc., etc.)** | The student performed an independent calculation (e.g. hand calc, computer-based MU calc) properly for this plan using accepted planning practice | The student did not perform an independent calculation or failed to perform the independent calculation (e.g. hand calc, computer-based MU calc) properly according to accepted planning practice | This item is not applicable to this competency. |
| **18.**<br>**Record and Verify System information correct** | The student entered and/or verified the Record and Verify information properly for this plan using accepted planning practice | The student failed to enter and/or verify the Record and Verify information properly for this plan using accepted planning practice | This item is not applicable to this competency. |

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| **19.**<br>**Plan can be implemented clinically** | The student ensured that the treatment plan can be implemented in the clinic through interaction with other clinical team members (e.g. therapist, dosimetrist, radiation oncologist) | The student failed to ensure that the treatment plan can be implemented in the clinic through interaction with other clinical team members (e.g. therapist, dosimetrist, radiation oncologist) | This item is not applicable to this competency. |
| **20.**<br>**Overall plan appropriateness acceptable** | The overall treatment plan is appropriate according to accepted medical dosimetry practice. | The overall treatment plan is not appropriate according to accepted medical dosimetry practice. | This item is not applicable to this competency. |
| **21.**<br>**Overall plan quality acceptable** | Quality of the treatment plan meets or surpasses clinical practice standards acceptable as specified by RTOG protocol, clinical protocol, and/or physician prescription | Quality of the treatment plan does not meet clinical practice standards acceptable as specified by RTOG protocol, clinical protocol, and/or physician prescription | This item is not applicable to this competency. |
| **22.**<br>**Student obtained plan approval from a certified medical dosimetrist or other credentialed practitioner as appropriate prior to treatment** | Student actively interacted with a CMD or other appropriately credentialed practitioner as appropriate regarding the treatment plan to gain approval prior to implementation. | Student failed to interact with a CMD or other credentialed practitioner as appropriate regarding the treatment plan to gain approval prior to implementation | This item is not applicable to this competency. |
| **23.**<br>**Student obtained plan approval from physician** | Student actively interacted with the physician regarding the treatment plan to gain approval. | Student failed to interact with the physician regarding the treatment plan to gain approval | This item is not applicable to this competency. |
| **24.**<br>**Planning time reasonable** | The amount of time the student utilized to successfully complete a treatment plan is reasonable relative to plan complexity (e.g. 2-6 hours total planning time for simple or intermediate plans, 8 or more hours for complex plans) | The amount of time the student utilized to successfully complete a treatment plan is unreasonable relative to plan complexity | This item is not applicable to this competency. |
| **25.**<br>**Able to answer questions relevant to planning of case (cognitive evaluation)*** | Student confidently and clearly presented answers to evaluator questions relevant to the clinical case. | Student failed to confidently and clearly present answers to evaluator questions relevant to the clinical case. | This item is not applicable to this competency. |
| **26.**<br>**Interact with others in a mentoring/mentee role as appropriate (affective evaluation)** | Student behavior exemplified characteristics of a mentor and/or mentee as appropriate. These behaviors include active eagerness to learn and actively assisting others. | Student behavior failed to exemplify characteristics of a mentor and/or mentee. These behaviors include lack of eagerness to learn and lack of desire to assist others. | This item is not applicable to this competency. |
| **27.**<br>**Courteous and professional behavior displayed (affective evaluation)** | Student behaved in a courteous and professional manner during all interpersonal interactions according to guidelines for the organization in which the student is assigned.<br>***Note: The student must be informed regarding professional behavior guidelines for the** | Student failed to behave in a courteous and professional manner during all interpersonal interactions according to guidelines for the organization in which the student is assigned. | This item is not applicable to this competency. |

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|---|---|---|---|
| | **organization prior to completing competencies** | | |
| 28<br>**Virtual interaction/ communication with others in a clinical capacity as appropriate (affective evaluation)** | Student virtual interactions were appropriate to successfully complete all aspects of the treatment plan in a virtual environment. | Student behavior failed to exemplify virtual interactions were appropriate to successfully complete all aspects of the treatment plan in a virtual environment. | This item is not applicable to this competency. |