Doisy College of Health Sciences Program-Level Assessment: Annual Report

Program: Molecular Imaging and Therapeutics	Department: Clinical Health Sciences
Degree or Certificate Level: master's level	College/School: **Doisy College of Health Sciences**
Date (Month/Year): August 2020	Primary Assessment Contact: Sarah Frye

In what year/cycle was the data upon which this report is based collected? Fall 2019/Spring 2020

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

1. Student Learning Outcomes

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

Program Learning Outcome (PLO #2): The molecular imaging and therapeutics student will exhibit appropriate professional written and oral communication with instructors, technologists, therapists, students, and physicians.

Program Learning Outcome (PLO #4): The molecular imaging and therapeutics student will demonstrate effective research techniques using components including knowledge of the clinical research best practices, literature review(s), and analyzing the research experience through the clinical environment lens.

2. Assessment Methods: Student Artifacts

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

PLO #2: **MIT 6000** Master's Seminar I / Written Article Critique

A written article critique assignment served to assess this PLO. The student must take one of the articles included in their previous assignment (see literature review assignment) and write a critical critique. The student will then critically evaluate this article overall and into individual section of title, background, methods, materials, discussion, conclusion. See appendix labeled: Written Article Critique Rubric.

MIT 6100 Master's Seminar II / Teach Back Assignment

A teach back assignment served to assess this PLO. Each student is required to give a 60-minute overview of his/her original modality to the undergraduate imaging and/or therapeutics students. The student must give an oral presentation on the history, instrumentation, safety, common procedures, and case studies for this modality. The student is also graded on how (s)he answers questions from faulty and/or peers. See appendix labeled: Teach back rubric.

PLO #4: **MIT 6000** Master's Seminar I / Literature Review

A literature review assignment served to assess this PLO. Each student was required to find, read, and compile 5-7 articles from a peer-reviewed medical journal. The articles need to be inclusive of the student's modalities of study. The student was then assigned to briefly summarize and created an annotated bibliography in the area of interest for the student's search. See appendix labeled: Literature Review grading rubric.

MIT 6200 Master's Seminar III / Critical Reflection Assignment

A critical reflection assignment is used to assess this PLO. The student has been participating in critical reflections for at

least 9 months in this program up until now. The prompts that the student needs an answer for this PLO include: "Is there a part of this course/rotation that you are finding difficult? Why is this different than previous experiences? How are the professional practices in a research setting different from the clinical setting?". See appendix labeled: critical reflection rubric.

We did not have a student in Madrid. MIT 6100 and MIT 6200 are offered in a hybrid format with both online and in person aspects.

3. Assessment Methods: Evaluation Process

What process was used to evaluate the student artifacts, and by whom? Please identify the tools(s) (e.g., a rubric) used in the process and include them in/with this report.

PLO #2

MIT 6000 Master's Seminar I / Written Article Critique

A written article critique was graded by the course instructor using an assessment rubric (see appendix). The student must pick a research article that represents their research area of interest. They must critically evaluate the article with criteria in the rubric to determine the article's worth and validity. The instructor complied the scores and identified students scoring 85 out of 100 as achieving the ranking of "application" or higher.

Each written article critique was reviewed and compared to the corresponding assessment rubric included in the appendix. It was clear from reviewing these individual assignments that students whose artifacts were examined all seem to have a good handle on how to critically analyze a peer-reviewed journal article.

The initial reviewed raised the question about the confident of the students being about to evaluate the statistical methods used in the journal articles.

"Should we expect a first semester graduate student to have an in depth understanding of statistics and statistical software?"

To address this statistical analysis question, the instructor looked deeper into a few aspects of the Molecular Imaging and Therapeutics students.

1. Each student applying for this program is encouraged to have taken a statistics course within the last 5 years; however, it is not a requirement that the student must take a statistics course.

2. A quick literature review was conducted to determine how much other medical imaging programs require statistical methods within the first semester of the graduate program.

The instructor then reviewed the assessment rubric content to determine how much emphasis is based on how the statistical data is critiqued by the student. It was determined that at this point in their academic career, it would be beneficial for the students to be able to recognize what analysis was done, and if this analysis was appropriate for the sample size, data type, etc.

MIT 6100 Master's Seminar II, Teach Back Assignment

The teach back assignment was graded by the course instructor and other molecular imaging and therapeutics faculty using an assessment rubric (see appendix). This was a 60 to 90 minute presentation to undergraduate students about the modality in which this graduate student is already familiar. The teach back includes an overview of physics, instrumentation, safety, physics, normal (and abnormal) department workflow, and case studies. The instructor complied the scores and identified students scoring 85 out of 100 as achieving the ranking of "synthesis" or higher.

Each teach back assignment was reviewed and compared to the corresponding assessment rubric included in the appendix. It was clear from reviewing these individual assignments that students whose artifacts were examined all seem to have a good handle on how to orally present the different aspects of their original modality in which (s)he came to SLU.

The initial reviewed raised the question about the presentation of the data.

"Does this need to be in person or can this be recorded and questions answered electronically?"

The rubric was edited to include a live video or recording. If the student chose to do a recording, the student would have to come up with 4-6 questions for the undergraduate student listeners to answer about his/her modality. The instructor would grade the student based on the questions this student chose to include and that students answers to his/her posed questions. These changes went into effect in the Spring 2020 course which is included in the appendix below.

PLO #4

MIT 6000 Master's Seminar I / Literature Review

The literature review assignment was graded by the course instructor using an assessment rubric (see appendix). The student had to find articles that combines modalities of study and list these in an annotated format. The exercise is graded on the thoroughness of the literature review and the student's ability to articulate their research questions and aims. The instructor complied the scores and identified students scoring 85 out of 100 as achieving the ranking of "knowledge" or higher.

Each literature review assignment was reviewed and compared to the corresponding assessment rubric included in the appendix. It was clear from reviewing these individual assignments that students whose artifacts were examined all seem to have a good handle on how to find appropriate peer-reviewed medical journal articles and display the annotated bibliography in a literature review.

The initial review did not raise any questions about this assignment as this time.

MIT 6200 Master's Seminar III, Critical Reflection Assignment

Critical Reflection #1 was graded by the course instructor using an assessment rubric (see appendix). The student must compare the research rotation to the clinical rotation and reflect on how this will impact them and the field in the future. The instructor identified students scoring >8 out of 10 as achieving the ranking of "synthesis".

Each critical reflection assignment that was reviewed and compared to the corresponding assessment rubric included in the appendix. It was clear from reviewing these individual assignments that students whose artifacts were examined all seem to have a good handle on how to critically evaluate the prompts that were included in this first critical reflection in this course.

The initial reviewed raised the question about how to include more questions in which the student must pull data from other sources including medical journals and peers in the clinically setting.

The rubric question included in the assessment measures "Formulates conclusions consistent with a wide range of evidence?" is ambiguous to be answered with the prompts provided for this critical reflection.

The instructor will review other questions and prompts in the other critical reflections in this course and research new prompts on how to incorporate this rubric aspect clearer in this assignment.

See appendix for rubrics.

4. Data/Results

What were the results of the assessment of the learning outcomes? Please be specific. Does achievement differ by teaching modality (e.g., online vs. face-to-face) or on-ground location (e.g., STL campus, Madrid campus, other off-campus site)?

PLO #2:

MIT 6000 Master's Seminar I / Written Article Critique

100% achieved a ranking of "application" or higher using the corresponding assessment rubric Written Article Critique in MIT-6000.

Review of the written article critique rubrics showed that the wording for the application ranking refers to written discussion of the peer-reviewed journal article.

The quick literature search found that most students, in other programs of this kind and at this point in their training, could incorporate not only application of knowledge, but also clearly propose solutions to discrepancies found when completing a written article critique.

MIT 6100 Master's Seminar II / Teach Back Assignment

100% achieved a ranking of "synthesis" or higher using the corresponding assessment rubric for the Teach Back Assignment.

Review of the teach back assignment rubric showed that the synthesis ranking refers to oral communication and presentation to their undergraduate peers.

The review of the graded rubrics for this assignment showed that all evaluated students could adequacy describe their certified modality to their undergraduate peers. The students seemed to consistently score lower (but still in adequate range) on the physics aspects which is to be expected as this is a difficult topic for even high level graduates.

The course delivery format (i.e., switch from face-to-face to all on-ground) in Spring 2020 had no obvious effect on the data/results found during this process. The assignment was switched form in class delivery to recorded and the question section was switched as described in section 3.

PLO #4:

MIT 6000 Master's Seminar I / Literature Review

100% achieved a ranking of "knowledge" or higher using the corresponding assessment rubric for the literature review assignment.

Review of the literature rubrics showed that the wording for the knowledge ranking refers to evaluation of the peer-reviewed journal articles included in the student's literature review assignment.

The review of the graded rubrics for this assignment showed that all evaluated students could (1) adequality locate articles in peer-reviewed journals, (2) locate articles that were appropriate to that student's field(s) of study, and (3) summarize their area of research interest. This area of interest summarization included describing the student's research question, describing the potential research aims, and the process of how the student determined this topic.

As part of the reflection and grading of this assignment, the students and instructor discussed some of the pros and cons of each article. This helped the students determine the better articles to use for the later written article critique.

MIT 6200 Master's Seminar III / Critical Reflection Assignment

100% achieved a ranking of "synthesis".

Review of the critical reflection rubrics showed that the wording for the synthesis ranking refers to evaluation of the submitted critical reflection assignment.

The review of the graded rubrics for this assignment showed that this assignment could benefit from including questions that requires students to go more in depth into their topics. The students met the objectives of the assignment. However, a quick literature review showed that the students could benefit from including a more in depth and outside research and analysis into the topic at this point in the student's studies. The instructor will do some more research before next review cycle to determine better questions to include in this prompt to lead the student to more

of a "synthesis" ranking.

The course delivery format (i.e., switch from face-to-face to all on-ground) in Spring 2020 had no obvious effect on the data/results found during this process. However, a question with the COVID crisis aspect was included in the question prompt.

5. Findings: Interpretations & Conclusions

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

PLO #2:

MIT 6000 Master's Seminar I / Written Article Critique

Using the current assessment rubrics version, no artifact could be ranked above the "application" level.

MIT 6100 Master's Seminar II / Teach Back Assignment

Based on student rubrics the were reviewed for this PLO, all students reached the equivalent of a "synthesis" level when completing the teach back assignment.

PLO #4:

MIT 6000 Master's Seminar I / Literature Review

Using the current assessment rubrics for the literature review, no artifact could be ranked above the "knowledge" level.

MIT 6200 Master's Seminar III / Critical Reflection Assignment

Based on student transcripts and the brief literature review, like students often reach the equivalent of a "synthesis" level when completing written article critiques.

The assessment rubrics used to grade the assignments used in this PLO are appropriate; however, the assignment prompts and scoring need to more individually focused based on what the individual needs to accomplish during the MIT 6200 course. This may mean self-assessment prior to beginning the course. The instructor will work with the student mentors to determine a more appropriate evaluation process.

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

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

This is the first year we have evaluated these PLOs. Therefore, we need to complete another assessment cycle before we can follow up and make changes if needed.

B. How specifically have you decided to use 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 • Student artifacts collected • 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 the findings.

Overall for PLO #2 and PLO #4:
Course content has been edited and updated. The rubrics have been updated to be more inclusive of the learning outcomes expected in the course and in the program. The course included more steps for self-evaluation on the critical reflection assignments; this also included more transparent direction for the students to complete their assignments. The assessment plan has not been edited.

Specific to PLO #4:
The program faculty determined that based on review of the current assessment rubric and the brief literature review, that we will follow this protocol for the next cycle:

- Adjust the assessment rubrics to be in line with the artifact. The artifact is an example of demonstrating effective research techniques. The current assessment rubric wording indicates the evaluations of written communication at the "knowledge" ranking and at the "synthesis" ranking.

- Analyze the data received exactly like that done in this review:
    - Conduct a review of student transcripts and updated literature review at the "synthesis" ranking level written critical reflection assignment.

If no changes are being made, please explain why.

NA

7. Closing the Loop: Review of Previous Assessment Findings and Changes

A. What is at least one change your program has implemented in recent years as a result of assessment data?

Since there is one main faculty member for this program and courses, the faculty member evaluated herself with the help of the department chair. The rubrics were reviewed and assessed with fellow department members for clarity and transparency. The feedback from the previous year's students were also incorporated into these rubrics. The trends of the grades in the different sections of the rubrics were analyzed and compared to previous years to look for trends in the lowest earning rubrics sections. These sections were re-written for clarity.

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

Several prompts on the critical reflection assignments were edited to better represent what was needed for PLO #1, #3, and #5 to evaluate. The language was made more intentional. After the prompts were edited, the other faculty in the department reviewed these changes to give feedback on the edited changes to comment if the changes conveyed the rubrics points assessed in that section.

C. What were the findings of the assessment?

All students reached expected outcomes of assessments. The assignments and grades for these assignments were reviewed for this assessment. All students reached the expected outcomes.

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

This faculty member also discussed course change possibilities with a representative in SLU's CTTL office. We will keep evaluating trends and look for feedback from current students on rubrics, assignments, and clarity of directions. The goal is to continue to review the qualitative data (the points given and overall grade for the assignment) and the qualitative data (the feedback given on the assignments and the comments from students and faculty). With the small numbers enrolled in this program, we will look at the individual assignments and not look at averages.

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

Molecular Imaging and Therapeutics (MIT)		
Program Learning Outcome (PLO #2): The molecular imaging and therapeutics student will exhibit appropriate professional written and oral communication with instructors, technologists, therapists, students, and physicians.		
Knowledge**	**Application****	**Synthesis****
• Recognize molecular imaging and therapeutic modalities.	• Demonstrate and explain the purpose of molecular imaging and therapeutic modalities in written communication among colleagues.	• Integrate knowledge and analyze information to orally communicate to colleagues.

Molecular Imaging and Therapeutics (MIT)		
Program Learning Outcome (PLO #4): The molecular imaging and therapeutics student will demonstrate effective research techniques using components including knowledge of the clinical research best practices, literature review(s), and analyzing the research experience through the clinical environment lens.		
Knowledge**	**Application****	**Synthesis****
• Comprehend the components of research including best clinical and research practices.	• Apply the components of research in a clinical research environment.	• Interpret the components of molecular imaging research and how the clinical researcher can have an impact in this setting.

Appendix

PLO #2: The molecular imaging and therapeutics student will exhibit appropriate professional written and oral communication with instructors, technologists, therapists, students, and physicians. Ranking of "application" or higher using the corresponding assessment rubric Written Article Critique in MIT-6000.

Written Article Critique Rubric

MIT 6000 Written Article Critique Assignment Student Name: _____

From the literature search you turned in, choose one article that represents your research area of interest well. This recent and relevant scholarly article must be well-written and include enough data to be able to re-create their research study. You will then critically evaluate this article with the criteria below to determine its worth and validity. Yes and no answers are not appropriate as you should describe the strengths and weaknesses in detail. You are free to add to the listing if you feel that there are other strong or weak points in the article—for example, the article may have all necessary content, but have errors specific to the modality. Type your critique in narrative format with complete sentences, proper grammar, etc. Be very thorough, as this assignment will be the basis for your oral article critique (PowerPoint presentation).

Journal Article Critique

Title/Abstract

1. Is the title of the article appropriate and clear?
2. Is the abstract specific and representative of the article, and does it contain all relevant information?

Background

3. Is the purpose of the article made clear in the introduction / background section?
4. Is the objective of the study sufficiently described, and is it important for the field?

Methods

5. Are the study design and methods sufficiently described, and are they appropriate for the study? (i.e. is the study able to measure the outcome appropriately)
6. Is the source of the subjects clearly described, and is there any potential selection bias (if needed)?
7. Was the sampling of subjects appropriate for the population (if needed)?
8. Are inclusion and exclusion criteria described (if needed)?
9. Are any technical parameters (e.g. equipment, imaging parameters, and software) described adequately?
10. Is there a statement describing or referencing all statistical procedures used, and are they appropriate?
11. Have the procedures been presented in enough detail to enable a reader to duplicate them?

Results

12. Are the results presented and described thoroughly (in text and in figures)?
13. If data is provided, are the results accurate? (i.e. no math errors)

Discussion

14. Are there errors in the interpretation of the results?
15. Is all of the discussion relevant?
16. Have any ideas been overemphasized or underemphasized? Do you find any content repeated or duplicated?

Overall Assessment

17. Are cited sources relevant and pertinent to the study? (journal quality, publication year, etc.)
18. Are the author's statements clear and unambiguous?
19. Has the author been objective in his or her discussion of the topic?
20. Are there any conflicts of interest or sources of bias for the investigators?

Overall Score: _____/100

Comments:

PLO #2: The molecular imaging and therapeutics student will exhibit appropriate professional written and oral communication with instructors, technologists, therapists, students, and physicians. Ranking of “synthesis” or higher using the corresponding assessment Teach Back rubric in MIT-6100.

Teach back rubric

Student's Name: _____

Student's modality they are presenting on: _____

Presentation Start / Stop time: _____ /_____

Evaluator's Name: _____

Overall score from this evaluator: _____

POWER POINT PRESENTATION - GRADING RUBRIC **Masters Seminar II – Spring 2019**

Modality Presentation in Emerging Technologies Courses

_____

STUDENT:

1. **Design of PowerPoint presentation / overall readability / flow**
   - Are the slides visually appealing? Are they easy to read from the audience perspective and make sense?
   - Are all abbreviations defined?
   - Do the slides flow well with the presentation?
   - **TOTAL (maximum of 10 points possible)** _____/10

2. **Delivery of presentation and knowledge of content**
   - Does the student seem knowledgeable about the area of focus?
   - Is he or she able to explain the modality in a way that someone with little exposure can understand?
   - Is there good speed of delivery and is the speaker audible?
   - Have the important aspects of his or her modality been stressed?
   - Is the student able to field any questions that arise during their lecture?
   - Has the student stayed true to their 60 minute time limit?
   - **TOTAL (maximum of 10 points possible)** _____/10

3. **History of the modality and Physics / Science behind the modality**
   - Are the key interactions described in a way students who have no prior knowledge can understand?
   - Is the physics described of the area of focus and how this is used to make a picture or treat or a patient?
   - Are images included that enhance the understanding of key points?
   - Are key terms defined? Are key people (founding members in the field) acknowledged?
   - Has the student described the evolution of discoveries that led to the equipment, procedures, and abilities this modality has today?
   - **TOTAL (maximum of 20 points possible)** _____/20

4. **Instrumentation and Safety**
   - Does the student describe the instruments used in his or her area of focus?
   - Are the specialty areas explained within the student's area of focus and how they operate?
   - Is the equipment discussed? Is how to safely use this equipment included?
   - Are the greatest safety risks explained and what a technologist/therapist can do to prevent them?
   - **TOTAL (maximum of 20 points possible)** _____/20

5. **Common procedures and a day in the life of a technologist/therapist in this area**
   - Are the most common procedures performed in his or her area of focus included?
   - How does the staff in the student's area work? Who is included in the staff?
   - What kind of hours does staff work? Does this include call? Does this include weekends/holidays?
   - How does this modality interact with other modalities?
   - **TOTAL (maximum of 15 points possible)** _____/15

6. **Case Studies**
   - Are there good examples of normal and abnormal cases?
   - Are there corresponding images with the cases that highlight the capabilities of the modality?
   - Can the student explain the prep, setup, equipment used, anatomy, and discharge instructions for some of the routine procedures?
   - **TOTAL (maximum of 20 points possible)** _____/20

7. **Question and answer session and knowledge of topic overall**
   - Is the student able to appropriately field questions regarding their field?
   - Is he or she knowledgeable about the subject and able to guide the conversation regarding their topic?
   - Does the student appropriately handle a subject matter they are unfamiliar with (if applicable)?
   - **TOTAL (maximum of 5 points possible)** _____/5

Total points _____/100

COMMENTS:_____

_____

_____

_____

(PLO #4): The molecular imaging and therapeutics student will demonstrate effective research techniques using components including knowledge of the clinical research best practices, literature review(s), and analyzing the research experience through the clinical environment lens. Ranking of "knowledge" or higher using the corresponding assessment Literature Review grading rubric in MIT-6000.

Literature Review grading rubric

MIT 6000 Literature Review Assignment Grading Rubric Student Name: _____

Your assignment is to perform a literature search on a topic that combines your undergraduate modality of study and your current graduate modality of study. Keep in mind all of the modality-specific courses in which you are enrolled and the topics they are discussing as possible key words and common themes for your search (physics, instrumentation, patient care, safety, quality control, etc.). This literature review will be a building block for the rest of the assignments in this seminar course.

Please search multiple databases to get the most complete literature review you can on your selected topic (I would expect a minimum of 7-9 articles with no maximum). Search for articles from peer-reviewed journals that are relatively current (usually within the last 5-7 years is a good guideline). Be sure to include search terms for a specific topic in which you believe you will find quality articles that include information on some of the statistical methods we have been discussing. Review the articles well (full text, not just the abstract) so that you create a succinct list of literature.

Collect all relevant articles in EndNote and print a listing of your articles in annotated format (this will include the abstract along with the citation) to turn in with your assignment. Along with this listing, you need to turn in a brief summary of your area of interest for your search. This should be one page or less and narratively describe your research question and potential research aims, and the process of how you came up with this particular topic.

This exercise will be graded on the thoroughness of your literature review and your ability to articular your research question and aims. I will also review your library to determine the cohesiveness of the articles that were submitted and the quality of the journals in which they were printed. Please contact me with any questions or concerns. Don't forget about the resources available to you, including the Student Success Center and the Library–they are there to help!

Submit this assignment to Blackboard titled as your last name and Assignment One (ex.: 'Frye Assignment One'). Use Times New Roman font size 12 with 1 inch margins. The paper will be graded on the following criteria.

(1) **Grammar & Mechanics (20 points)** _____
   a. Is the paper free of mechanical errors (grammar and spelling)?
   b. Does the paper comply with the length and format indicated above?
   c. Are there an appropriate number of articles used?

(2) **Communication (40 points)** _____
   a. Is the paper focused? Does it show clarity and awareness of subject matter?
   b. Is the paper professional and scholarly? Is it easy to read?
   c. Does the paper include the annotated format?
   d. Are the citations appropriate and correctly written?

(3) **Student Summary (40 points)** _____
   a. Does the paper include the student's summary of each article?
   b. Is the summary of the subject matter presented affectively at the beginning of the paper?
   c. Is there an insightful discussion of the impact of their modalities and of current and future research?
   d. Are the students explanation of why this subject matter was chosen included in the paper?

Comments/Concerns:

(PLO #4): The molecular imaging and therapeutics student will demonstrate effective research techniques using components including knowledge of the clinical research best practices, literature review(s), and analyzing the research experience through the clinical environment lens. Ranking of "synthesis" or higher using the corresponding assessment Critical Reflection Rubric in MIT-6200.

Critical Reflection Rubric

Critical Self-Reflection Grading Rubric

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

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