Description
This course of study presents the required learning resources and sequence of learning activities to develop competence in Reasoning and Problem Solving in the Context of the Humanities (RUA1 and RUA2). For RUA1, you will have nine tasks to complete, each of which is submitted for grading through TaskStream. Each RUA1 task requires that you respond to your selected —question at issue— in a different and specific way. Each of these tasks is part of a comprehensive evaluation of your issue, but the process has been simplified by requesting that you focus on only certain aspects of an analysis in each task. These tasks invite you to think about your topic and your own thinking processes—to apply the same strategies to yourself as you would to your question or topic. Tasks requiring revision can be re-submitted after revision for re-grading.

Once you have completed RUA1, you will begin work on RUA2, which represents the culminating tasks for the Collegiate-Level Reasoning and Problem Solving Skills domain (CLRPS), where you prepare a detailed outline and write an analytical essay, both of which will address your —question at issue— from RUA1. Writing the elaborated outline and the analysis will draw on the previous tasks, but you will also need to include new information to satisfy the rubrics for the final tasks. In general, students should take no longer than about twelve weeks to complete the tasks associated with these assessments, twelve weeks for RUA1 and four weeks for RUA2. You may accelerate this pace, depending on your proficiency in critical thinking and the time available to you to work on these assessments.

Introduction
Welcome to the Reasoning and Problem Solving domain at Western Governors University! The goal of the Reasoning and Problem Solving domain is to lead students through a systematic examination of an open-ended issue or problem that takes them beyond an unexamined point of view. As students explore aspects of critical thinking, they find themselves consciously monitoring their thinking in order to improve the way they think. As they become more self-aware thinkers, they learn to balance a healthy skepticism with an intellectual humility that discourages premature closure on issues they seek to understand.

Learning to become a fair and effective critical thinker prepares students for responsible participation as professionals and citizens, as well as in their personal lives. To realize the goal of this domain, you must practice conscious, systematic, and self-reflective reasoning, incorporating the standards and elements of critical thinking.

Essentially, this domain will guide you to becoming a better learner. While the concepts may be difficult to comprehend at first, progress through the material will make things flow more easily.
The concepts contained here will help you more fully benefit from the skill sets and knowledge you will obtain as a student at WGU, as well as beyond your student career.

If at any time you require additional assistance or have any questions while working on this course of study, please feel free to contact the mentors for this area:

**Course Mentor** .................................. Susanne Goethals
**E-mail** ........................................ clrps@wgu.edu
**Telephone** ...................................... 1- 877-435-7948 Ext. 4898
**Office Hours** ................................. T: 11:00 AM - 8:00 PM
.................................................. W: 11:00 AM - 8:00 PM
.................................................. Th: 9:00 AM - 6:00 PM
.................................................. F: 9:00 AM - 6:00 PM
.................................................. Sa: 1:00 PM - 5:00 PM
.................................................. Central Time

**Competencies Covered:**

**Competency 104.1.1: Problem Identification and Clarification**
The graduate recognizes open-ended problems for which there is more than one reasonable solution and considers reasons for opposing perspectives relating to the problem.

**Competency 104.1.2: Planning and Information Gathering**
The graduate gathers multiple types of information representing differing perspectives on a single problem and uses them to consider a variety of possible solutions to the problem.

**Competency 104.1.3: Assumptions and Values**
The graduate recognizes value-based assumptions and biases in writing and evaluates the strengths and weaknesses of those biases.

**Competency 104.1.4: Interpretation and Analysis of Information/Data**
The graduate organizes information to clearly explore the complexities of the problem and potential solutions then carefully analyzes the evidence for various positions.

**Competency 104.1.5: Reaching Well-Founded Conclusions**
The graduate logically links information to form a thoughtful solution to a problem and effectively communicates the results.

**Assessments:**
There are two (2) assessments associated with the Collegiate-Level Reasoning and Problem Solving Skills (CLRPS) domain. They are Reasoning and Problem Solving in the Context of the Humanities, Part I (RUA1) and Reasoning and Problem Solving in the Context of the Humanities, Part II (RUA2).

The Reasoning and Problem Solving in the Context of the Humanities, Part I (RUA1) Assessment is made up of nine (9) tasks and is submitted through TaskStream for grading. The Reasoning and Problem Solving in the Context of the Humanities, Part II (RUA2) Assessment consists of two (2) substantive tasks, which are also submitted through TaskStream for grading. Although the CLRPS tasks are often completed and passed in the order in which they appear, students may submit these tasks in whatever order is most efficient for them.
The Reasoning and Problem Solving competencies cover the following topics:

- What is critical thinking?
- Elements and standards of thinking
- Systematic problem solving
- Assumptions, biases, and fallacies
- Evidence
- Thinking about your thinking
- Identifying and evaluating possible solutions or responses to an issue
- Creating an elaborated outline
- Writing a critical analysis

**Required Learning Resources:**


**MindEdge Collegiate Level Reasoning and Problem Solving Skills Modules.**
This series of interactive modules will assist students in developing competency in this domain. Students will enroll in this resource through their AAP. Once they have enrolled, they will receive an email from Learning Resources confirming enrollment. When the course is available, they will receive an email notification to their WGU email account (or personal e-mail account). This email will contain login instructions, a username, and password.

**Preparing for Success**
Here you will be introduced to the learning resources that you will need in order to achieve success in this domain of study. Below you will find instructions on how to order and access the resources that are available to you.

**The Learning Resources**
The following activities will guide you through acquiring and accessing the Learning Resources required for this area of study.

- **Enroll in the Learning Resource**
  Enroll in the MindEdge Modules: Reasoning and Problem Solving. This series of interactive modules will assist you in developing competency in Reasoning and Problem Solving. You will enroll in this resource through your AAP. Once you have enrolled, you will receive an e-mail from the Learning Resources Department confirming your enrollment. When your course is available, you will receive an e-mail notification to your WGU e-mail account (or personal e-mail account). This e-mail will contain login instructions, a username, and your password.

  *Note: Please retain all e-mails and materials you receive regarding your learning resources. The information contained in these materials is very helpful.*
Order your Textbooks

Order the following textbooks:


The WGU bookstore has these books available for immediate purchase and delivery. You may shop at other online bookstores, but be sure to order early and use the correct ISBN to get the right edition. Reasonably priced used copies are readily available for both titles.

Take the Student Self-Assessment

Before you begin your preparations for the RUA1/RUA2 assessment, you should complete the Student Self-Assessment (SSA) for this area. You can access the SSA by following these instructions:

Click on this link:
https://web5.wgu.edu/aap/content/RUA1_RUA2%20SSA_11_09.doc

Download the Student Self Assessment to your computer

Follow the directions on the Student Self Assessment rating your knowledge of the various topic areas

Forward your results to your mentor of record.

This Student Self-Assessment can be taken on your computer at home or any other convenient location. Do not use your notes or texts when completing the Student Self-Assessment. This will help indicate areas you will need to study before working on tasks for the RUA1 and RUA2 performance assessment.

Create a Study Journal

Create an area or document (electronic or manual) where you can take notes on the readings, vocabulary, guiding questions, and self-reflective activities that document your thinking processes and strategies throughout this course of study. For ideas on how to divide this journal into sections, see the learning community or contact your mentor or the course mentor.

Refer for Assessments

During a call with your Mentor, you will refer for the RUA1 and RUA2 assessments.

To refer for the RUA1 Assessment:

1. Go to your AAP.
2. Find RUA1. Click on —assessment referral.
3. Click the tab —request assessment.

4. Your Mentor will need to approve this request. It will take approximately two business days for the RUA1 to appear in your TaskStream account.

To refer for the RUA2 Assessment:
1. Go to your AAP.
2. Find RUA2. Click on —assessment referral.
3. Click the tab —request assessment.
4. Your Mentor will need to approve this request. It will take approximately two business days for the RUA2 to appear in your TaskStream account.

**Access the Learning Community**
You will find that many of your questions have been asked and answered by your fellow students in the learning community discussion threads. You will also find FAQs in the documents section of the community. If, after using these learning resources, you need further assistance, please feel free to post a question in the learning community or contact the course mentors directly. The course mentors for this area can be reached at clrps@wgu.edu. You can also reach a course mentor by using the —Contact a Mentor IM feature in the learning community.

### Selecting a Topic and Defining a Problem
Your first task is to select an issue or problem from the —Choosing a Problem— list. You can access this list through RUA1 in TaskStream. From the task menu in RUA1, click on the directions for Task 1. Scroll to the bottom of the screen and click on the file attachment, —Choosing a Problem. You should now be looking at the nine —Questions at Issue. Your choice from this list ideally should be something that interests you, either personally or professionally. This issue or problem question will be the focus of the RUA1 and RUA2 assessments which you will complete to demonstrate your critical thinking.

Once you have selected your —question at issue, you may want to do some exploratory writing or mapping. What you write down could be as simple as a list of ideas that comes to mind when you think about this issue or problem. Generating this early writing will also help you identify key terms that may later be useful in searching for information. This writing to learn activity may also help you generate new thoughts about your —question at issue.

You may also want to look at a few resources on this topic in the Opposing Viewpoints database, a starting point for your search for information. Directions for accessing this database are given in a blog post in the CLRPS Community. You can also follow the directions from one screen to another in the WGU Library. This may give you sufficient background for the RUA1 Task 1 writing assignment where you share your thoughts on defining the problem and giving your first ideas as to a possible solution or response to your problem.

**Background Information**
The first task in RUA1 is to create a baseline which documents your initial thinking about your chosen —question at issue. This gives you a opportunity to explore what you think you already know about your selected issue and to write down your best thinking on your issue as you start this assessment. You
may refer to outside resources for information, if you don’t already have prior knowledge and a perspective on your issue.

**Competency 104.1.1: Problem Identification and Clarification**
The graduate recognizes open-ended problems for which there is more than one reasonable solution and considers reasons for differing perspectives relating to the problem.

**Defining Critical Thinking**
You’ll find many definitions of critical thinking, but there are two aspects that must be present for thinking to be *critical thinking*—critical thinking is reflective and critical thinking meets certain standards. The following activities will introduce you to the concepts of critical thinking.

☐ **Read Chapter 1 “What is Critical Thinking?” in *Learning To Think Things Through***
As you read through this chapter pay particular attention to and take notes on the following concepts, ideas, and questions. Enter your findings in your study notebook or journal.

Definitions of critical thinking: What do they all have in common?

Prominent features always present when critical thinking is taking place

Formulating and asking good questions

Answering questions through reasoning

Believing the results of your reasoning: What happens when the results of your reasoning challenge your long-held beliefs?

Make a list of the —myths—and —misconceptions— of critical thinking; can you add some that are not in the text?

What is meant by the word —critically—in critical thinking?

How does critical thinking go beyond problem solving?

Make a list of impediments to critical thinking. Note examples from your own life where those impediments have distorted your thinking.

Consider these questions: Do you have a need for critical thinking in your life? How can your life be improved through critical thinking?

Consider how SEE-I can help you perform the tasks in this domain.

Reflect upon the critical thinking character traits at the end of the chapter. Do you possess these traits? How can you improve your practice of these traits?

Begin a journal in which you reflect upon your own thinking. What impediments do you notice in your own thinking? How will you challenge your own
egocentricity? Do you have the traits of a critical thinker? Use this journal to observe changes in your own thinking patterns as you work.

☐ **Complete MindEdge Module 1**

Work through the exercises in *Module 1: What is Critical Thinking?* from WGU’s MindEdge Modules in Critical Thinking.

The MindEdge exercises are directly aligned with your text, so as you work, add to your notes from the text reading as your understanding of the concepts deepens.

Check your answers and review concepts in the texts as needed.

**Defining the Question at Issue (QUI)**

Good research begins with clarity about the question at issue. The following activities will help you formulate a solid question at issue to guide your research as proceed through this domain.

☐ **Read Chapter 1, “The Benefit of Asking the Right Questions” in Asking the Right Questions**

As you read through this chapter pay particular attention to and take notes on the following concepts, ideas, and questions. Enter your findings in your study notebook or journal.

What is the difference between the sponge approach to thinking and the panning-for-gold approach? Which is more appropriate for critical thinking?

Searching for answers when there’s no —right‖ answer

Describe the difference between weak-sense and strong-sense critical thinking. Which are you?

☐ **Formulate a question of judgment to guide your research**

Access the —choosing a problem‖ list found the RUA-1 Task One instructions. From this list, you will choose a topic to be used for critical analysis throughout RUA-1 and RUA-2. Your choice should be something that interests you either personally or professionally.

Once you have selected an issue or problem, you may want to do some exploratory writing or mapping. You write down a simple list of ideas that come to mind when you think about this issue or problem.

Go to the CLRPS Community and locate Competency Builder #1-Focusing your topic with a question to guide your research, which can be found in the discussion threads section. Thoroughly read the descriptive opening post then post your response. You might also want to read and respond to other students who have posted there.
Complete RUA-1 Task 1A
Read the TaskStream Instructions for Task One (you have already completed the first three steps).

You are not required to use outside sources for Task One; however, if you wish explore some background information on your question at issue before responding to Task One, you are free to do so.

- If you do wish to explore background information on your topic, follow the TaskStream instructions to the Opposing Viewpoints database for introductory material on your topic. Please note: You are not limited to the Opposing Viewpoints database. You should conduct research as broadly as necessary and use the most complete and credible sources you can find.

The purpose of Task 1A is to give you a baseline, a starting point on your thinking process. It gives you a chance to explore what you already know about the topic and write down your initial views on the topic as they now stand.

Write your response to Task 1A, a brief informal essay of 2-3 pages, double-spaced.

Compare your task to the task checklist before submitting it.
Clearly describe the problem (question at issue) in your own words. (Define the problem and discuss the context of the problem.)

Present your own opinions on the reasons for the problem and your initial views on how the problem can best be addressed.

Defend your initial opinions about the best —solution‖ to the problem.

Proofread your paper for grammatical correctness and APA style.

Complete RUA-1 Task 1B
Open the form provided according to the instructions in TaskStream and answer all questions found there.

Be sure to read the entire question—in both large type and small type—and answer each part of the question posed.

Your response to each question will likely be a paragraph or shorter in length.

Journal Entry
Critical Thinking about your topic cannot be done without a continual assessment of your own thinking process. Reflection on your own thinking is an essential element of critical thinking. In future tasks you will be asked to evaluate the evolution of your thinking process. Make an entry in your journal reflecting upon
what you’ve learned about critical thinking and how you’ve applied that knowledge to this task.

Summarizing key concepts in critical thinking

Task 2 focuses on a few key concepts that are central to critical thinking and which are introduced in the required texts for RUA1 and RUA2. Although the task appears to be asking for summaries of individual chapters, what you are really being asked to do is answer specific questions about precise content in those chapters. Do this in your own words (which demonstrates understanding) and in one or two paragraphs for each question. For example, the first question in Task 2 asks you to summarize the three parts of critical thinking identified in the first pages of Chapter One in Nosich’s *Learning to Think Things Through*. This means you need to identify and explain these three parts. These questions have been provided to help students identify and represent important critical thinking concepts introduced in the initial chapters of both texts.

Background Information

The core process of critical thinking relies upon an understanding of key concepts including how to use the elements of reasoning to identify specific logic or thinking and how to apply the standards of critical thinking to those elements to determine the quality of that thinking. The following activities are designed to deepen your understanding of some key concepts of critical thinking.

Competency 104.1.2: Planning and Information Gathering

The graduate recognizes open-ended problems for which there is more than one reasonable solution and considers reasons for differing perspectives related to the problem.

Deepening your understanding of critical thinking

Critical thinking is a systematic process that allows you to explore complex issues. The following activities will help deepen your understanding of critical thinking.

- **Review Chapter 1, “What is Critical Thinking,” in *Learning to Think Things Through*.**

  Pay particular attention to and take notes on the following concepts, ideas, and questions. Enter your findings in your study notebook or journal.

  The three parts of critical thinking

  Common misconceptions about critical thinking

  The role of emotions in critical thinking

  Impediments to critical thinking

- **Review Chapter 1, “The Benefit of Asking the Right Questions” in *Asking the Right Questions*.**

  Pay particular attention to and take notes on the following concepts, ideas, and questions. Enter your findings in your study notebook or journal.
The role of emotions in critical thinking

The sponge and panning-for-gold methods of thinking

Weak-sense and strong-sense critical thinking

Using the elements of reasoning to determine logic

The elements of reasoning, also called the parts of thinking, are present in all reasoning. Identifying them will allow you to see the logic of any article, textbook, or field of study. The following activities will help you identify the elements of reasoning and give you an understanding of their interdependent nature.

- Read Chapter 2, “The Elements of Reasoning” in *Learning to Think Things Through*.

Pay particular attention to and take notes on the following concepts, ideas, and questions. Enter your findings in your study notebook or journal.

What are the two conditions necessary for critical thinking?

The 8+ elements of reasoning: What are they? Are all elements present in all reasoning? Why are they essential to critical thinking?

Defining each element: The elements are essential to the core process of critical thinking. You might want to list the elements and write a corresponding definition of each element in your own words.

The interdependency of the elements: How do they fit together?

Three additional elements and one misleading element

Going around the circle: The process of analysis and synthesis

Determining the logic of an article using the elements

Determining the logic of your own thinking using the elements

Exercise: In your notebook, consider a point of view that you strongly oppose and analyze it using by going around the circle of elements.

Read and evaluate what you have written in the exercise above. If you have fairly and accurately analyzed the opposing viewpoint, your analysis should be free of value judgments and your own opinions.

Reflect upon two new critical thinking character traits at the end of the chapter. How can you improve your practice of these traits?

Make a journal entry reflecting upon your own thinking process as you worked through the elements of reasoning
Applying the standards of critical thinking to the elements

For thinking to be *critical thinking* it must meet certain standards. The following activities will introduce you to the most common standards and help you apply them to perform critical analysis.

☐ **Read Chapter 4, “The Standards of Critical Thinking” in *Learning to Think Things Through.***

As you read through this chapter pay particular attention to and take notes on the following concepts, ideas, and questions. Enter your findings in your study notebook or journal.

The standards of thinking: What are they? Are they necessary for critical thinking? Is this a finite list?

Defining the standards: Make a list of the standards of critical thinking and write a definition of each in your own words.

What are the impediments to each standard?

- How is *critical thinking* different from thinking?

Non-critical thinking standards

Applying the standards to the elements: Evaluating a piece of reasoning

Using the elements and standards as you read: Why does it matter?

Use the standards check on pages 166 and 167 to help evaluate and correct your own thinking patterns.

Using the standards check on pages 166 and 167 each time you complete a task in this domain can be a useful tool.

Reflect upon the character traits at the end of the chapter. How can you improve your practice of these traits?

☐ **Complete MindEdge Module 2**

Work through the exercises in *Module 2: Systematic Problem Solving* from WGU’s MindEdge Modules in Critical Thinking.

The MindEdge exercises are directly aligned with your text, so as you work add to your notes from the text reading as your understanding of the concepts deepen.

Check your answers and review concepts in the texts as needed.
Identifying fallacies in reasoning
For reasoning to meet the standards of critical thinking it must be logical and free of—tricks‖ or—deceptions‖ commonly called fallacies. The following activities will help you identify fallacies in your own reasoning and in the reasoning of others.

☐ Read Chapter 7, “Are There Any Fallacies in the Reasoning” in Asking the Right Questions.
As you read through this chapter pay particular attention to and take notes on the following concepts, ideas, and questions. Enter your findings in your study notebook or journal.

What are three common tricks found in reasoning? Are you guilty of using some of these tricks yourself?

Using the six steps to examine reasoning and flush out fallacies

Become familiar with the most common fallacies

Use the practices exercises at the end of the chapter to increase your ability to identify fallacious reasoning.

☐ Complete MindEdge Module 3
Work through the exercises in Module 3: Barriers to Critical Thinking from WGU’s MindEdge Modules in Critical Thinking.

The MindEdge exercises are directly aligned with your text, so as you work add to your notes from the text reading as your understanding of the concepts deepen.

Check your answers and review concepts in the texts as needed.

☐ Complete RUA-1 Task 2
Read the TaskStream instructions for Task 2

- Access the Task 2 questions by clicking on the —form‖ tab

The Task 2 questions and prompts ask you to summarize specific key concepts of critical thinking. Answer the questions in complete sentences and in your own words. (In other words, do not respond with a list of isolated words and phrases.)

Be sure to read the entire question being asked—large and small print—and answer it thoroughly but concisely.

You will likely be writing a short paragraph for each question; however, when you summarize the elements and standards (questions 7 and 8) you might need a short paragraph (no more than a couple of sentences) for each of the elements and standards. Be sure to address the questions asked in small print.
Gathering relevant information - Part 1

Task 3 involves reading eight articles written on your topic and accessed through Opposing Viewpoints, available through the WGU Library, or accessed through other WGU library databases, or through an external search. Detailed instructions for accessing Opposing Viewpoints are given in a CLRPS Community Blog. It is also possible to simply follow the screen-by-screen directions in the WGU Library. Once you have reached Opposing Viewpoints, read about the search options for retrieving articles on your topic. Skim all the articles you retrieve before selecting eight to read carefully for Task 3. Remember you are looking for articles that are substantive and which represent different viewpoints on your topic. Do not select sources that are weak in regard to reasoning and evidence. You need strong and diverse sources to reach a solid conclusion with valid solutions.

Background Information

You are now ready to begin an exploration of your chosen topic, which you have narrowed into a question at issue to guide your research. This involves finding and reading a number of articles that represent a range of perspectives on your question at issue (which is also referred to as the —problem‖ in the tasks). The third task in the sequence encourages you to explore the complexity of your problem from many different angles.

Competency 104.1.2: Planning and Information Gathering

The graduate gathers multiple types of information representing differing perspectives on a single problem and uses them to consider a variety of possible solutions to the problem.

Refining your question at issue

As you get into the research of your topic, it’s easy to lose your focus. You might also find that your original focus needs to be refined as you discover new information. The following activity will help you refocus, refine and clarify your question at issue (QAI).

☐ Restate your question at issue.

Make sure that you are starting with an open-ended question that is free of bias. Make sure your question is one for which there are multiple defensible answers and one that is worthy of debate. This ensures that you won’t have trouble finding research with diverse perspectives on your topic. Also, make sure you have written your question in a way that will lead you to a —best‖ solution among competing solutions. For help with this, you can revisit Competency Builder #1 in the learning community.
Exploring the complexity of your question at issue through diverse perspectives
We often think about issues having two sides; however, many of the questions we explore through critical thinking have multiple diverse perspectives. The following activities will help you discover the multiple perspectives on your QAI.

☐ Read Chapter 2, “What are the Issue and the Conclusion?” in Asking the Right Questions.
As you read through this chapter pay particular attention to and take notes on the following concepts, ideas, and questions. Enter your findings in your study notebook or journal.

Locating an author's question at issue (QAI)

Six clues for identifying an author's conclusion

Use the exercises at the end of the chapter to practice identifying an author's QAI and conclusion.

☐ Complete MindEdge Module 4
Work through the exercises in Module 4: Identifying Issues and Conclusions from WGU's MindEdge Modules in Critical Thinking.

The MindEdge exercises are directly aligned with your text, so as you work add to your notes from the text reading as your understanding of the concepts deepen.

Check your answers and review concepts in the texts as needed.

Understanding the effect of ambiguity
Ambiguous words and phrases can weaken an argument if they are a key part of the reasoning that supports the conclusion. The following activities will help you identify ambiguity in your own reasoning and in the reasoning of others.

☐ Read Chapter 4, “What Words or Phrases are Ambiguous?” in Asking the Right Questions.
As you read through this chapter pay particular attention to and take notes on the following concepts, ideas, and questions. Enter your findings in your study notebook or journal.

The flexibility of the English language

Note the clues for locating key words and phrases

Ask the question: does the ambiguous word or phrase affect the reasoning

Understand how context affects ambiguity

Who is responsible for clarifying ambiguous words and phrases?
Use the exercises at the end of the chapter to practice locating ambiguity and understanding its impact on the reasoning and conclusions.

**Subject: Gathering relevant information-Part 2.**

This week you’ll continue to explore your QAI from many different angles as you continue to gather relevant information.

**Background Information**

After you have carefully selected eight sources that address your QAI, please do a close reading of these sources to get a broad understanding of your topic and its complexity. Print out a copy of the Relevant Information document available in TaskStream at the bottom of the Task 3 introduction page. Print a copy of the task rubric, as well. Use these documents to guide you as you write.

Your ability to think critically and to share that thinking with others is heavily dependent on your ability to use the vocabulary of critical thinking. Be thorough but concise as you write. The purpose of this task is to give you a better understanding of the complexity of your topic and to allow you to do some thinking about the implications of that complexity.

**Competency 104.1.2: Planning and Information Gathering**

The graduate gathers multiple types of information representing differing perspectives on a single problem and uses them to consider a variety of possible solutions to the problem.

**Competency 104.1.3: Assumptions and Values**

The graduate recognizes value-based assumptions and biases in writing and evaluates the strengths and weaknesses of those biases.

**Identifying assumptions**

All reasoning begins with assumptions. The following activities will help you identify assumption in your own reasoning and in the reasoning of others.

- **Read Chapter 5, “What Are the Value Conflicts and Assumptions?” in Asking the Right Questions.**

  As you read through this chapter pay particular attention to and take notes on the following concepts, ideas, and questions. Enter your findings in your study notebook or journal.
  - Definition of an assumption
  - Identifying **unstated** assumptions
  - Understanding the communicator’s background to help locating assumptions

- **Read Chapter 6, “What Are the Descriptive Assumptions?” in Asking the Right Questions.**

  As you read through this chapter pay particular attention to and take notes on the following concepts, ideas, and questions. Enter your findings in your study notebook or journal.
  - Clues for locating assumptions
Avoid analysis of trivial assumptions

☐ **Review pages 54-55, “Assumptions (background theory, what is given or what is taken for granted, axioms)” in *Learning to Think Things Through.***

As you read through this chapter pay particular attention to and take notes on the following concepts, ideas, and questions. Enter your findings in your study notebook or journal.

The relationship of assumptions to reasoning: Is it possible to avoid making assumptions?

Reflecting critically on assumptions

Make a journal entry exploring the assumptions you are making about your question at issue.

☐ **Complete MindEdge Module 5**

Work through the exercises in *Module 5: Considering Ambiguity and Assumptions* from WGU's MindEdge Modules in Critical Thinking.

The MindEdge exercises are directly aligned with your text, so as you work add to your notes from the text reading as your understanding of the concepts deepen.

Check your answers and review concepts in the texts as needed.

**Identifying evidence**

A good conclusion will be supported by strong information. The following activities will help you identify evidence used by your sources.

☐ **Activity: Review pages 57-58 “Information (data, evidence, observations)” in *Learning to Think Things Through.***

As you read through this chapter pay particular attention to and take notes on the following concepts, ideas, and questions. Enter your findings in your study notebook or journal.

Identifying information (evidence) used by your sources: What is included? What is omitted?

Identify the source of the information

Distinguish between information and the interpretation of information
Thinking about solutions, implications, and limitations
Your QAI has multiple competing solutions, each of which have implications and limitations. The following activities will help you explore and begin to evaluate competing solutions to your QAI.

☐ Review pages 60-61 “Conclusions, Interpretations (inferences, solutions, decisions arrived at)” in *Learning to Think Things Through*.
As you read through this chapter pay particular attention to and take notes on the following concepts, ideas, and questions. Enter your findings in your study notebook or journal.

- How interpreting information affects conclusions
- Contextualizing interpretations

☐ Review pages 56-58 “Implications and Consequences (what follows, costs and benefits) in *Learning to Think Things Through*.
As you read through this chapter pay particular attention to and take notes on the following concepts, ideas, and questions. Enter your findings in your study notebook or journal.

- Identifying positive and negative consequences
- Assess the likelihood of possible consequences

Understanding point of view
We all think about issue through a particular frame of reference. The following activities will help you explore points of view other than your own.

☐ Activity: Review pages 61-63 “Point of View (frame of reference, perspective) in *Learning to Think Things Through*.
As you read through this chapter pay particular attention to and take notes on the following concepts, ideas, and questions. Enter your findings in your study notebook or journal.

- All reasoning occurs within a point of view
- Understand relevant and diverse points of view on a particular topic

☐ Complete RUA-1 Task 3
Find eight articles that represent diverse viewpoints on your QAI. The TaskStream instructions suggest using the Opposing Viewpoints database in the elibrary and this is a good starting point. Depending upon your QAI, however,
you may find that you need to research more broadly to find good sources with a depth of information and solid reasoning to meet the standards of critical thinking.

Read those eight articles using the elements of reasoning to figure out the logic of each article. These eight articles allow you to begin to understand the complexity of your chosen QAI and provide the background information necessary to complete Task 3.

- Read the instructions for task 3 and open the —Relevant Information Form— provided.

Answer each of the section thoroughly and with close attention to vocabulary. Your ability to think critically is heavily influenced by your ability to use the vocabulary of this subject area.

Competency Builder #2 in the discussion threads of the community can help you with section 3C: Problem Environment.

- The word —factors— in as it is used in 3D might be translated to mean issues (things to be aware of—things to consider) when looking at this problem.

Competency Builder #6 in the discussion threads of the community can help you with section 3F: Theories and Models.

In a later task you will be asked to evaluate the evidence you've identified in 3H. Therefore, you should present the strongest evidence possible. Make sure you are presenting primary evidence rather than an interpretation of evidence. At least two of the four pieces of evidence presented must be statistical information.

☐ Compare your task to the checklist below before submitting:
Answer all sections

Provide a statement of the problem

List three related sub-problems

Describe the problem environment and people affected

List three factors to consider

In two instances, explain how ambiguous words weaken the argument

Explain two theories related to the problem

List three assumptions related to the problem

Identify four specific pieces of evidence, including two pieces of statistical evidence
Identify three potential solutions

Identify one drawback to each solution

Identify three groups of people with an interest in the problem and explain their different viewpoints about the problem

Use in-text citations and include a reference page as necessary

Proofread work to make sure it is free of grammatical, spelling,

**Focusing on Uncertainties**

According to some observers of contemporary society, we live in a time of ambiguity, a time when ethical codes are in flux, a time when decisions are as likely to be based on individual judgment as on a cultural or group norm. This, in part, explains why different people may reach different understandings of the same event, idea, or phenomenon. Words, concepts, or other phenomena that are unclear can invite a range of meanings. Task 4 invites you to look closely at your open-ended issue or problem to see if you can detect aspects that might appear to be ambiguous or uncertain, and thus open to interpretation.

**Background Information**

You are exploring a QAI/problem for which there are multiple competing defensible perspectives and related solutions. What makes this so? What is it about your QAI that makes it difficult for everyone to agree upon a certain approach? For one, different people bring different world views to bear on an issue and their very different backgrounds and understandings about that world can lead to proposing various and competing solutions.

**Competency 104.1.4: Interpretation and Analysis of Information/Data**

The graduate organizes information to clearly explore the complexities of the problem and potential solutions, then carefully analyzes the evidence for various positions.

**Exploring the reasoning of diverse points of view**

Point of view affects how we think about an issue. We can explore the complexity of our QAI by entertaining diverse points of view. The following activities will help you understand the diverse perspectives on your QAI.

- **Read Chapter 3, “What Are the Reasons?” in Asking the Right Questions.**
  As you read through this chapter pay particular attention to and take notes on the following concepts, ideas, and questions. Enter your findings in your study notebook or journal.
  Evaluating the conclusion by understanding the reasoning
  Asking the *why* questions to determine reasoning
  Clues for identifying reasoning
Review Chapter 4, “What Words or Phrases are Ambiguous?” in Asking the Right Questions.
As you read through this chapter pay particular attention to and take notes on the following concepts, ideas, and questions. Enter your findings in your study notebook or journal.
How does ambiguity affect reasoning?

Exploring the open-ended nature of your question at issue
There might be many unanswered questions and ambiguities within the context of your QAI that contribute to the difficulty of arriving at a single way to address the problem. The following activities will help you understand those uncertainties.

Compete RUA-1 Task 4
Read the task instructions for Task 4

Begin by making a list of aspects of your open-ended problem that appear to be uncertain. For example, if you are writing about obesity, one factor that contributes to the uncertainty of the issue is the way we define the terms —obesity‖ and —overweight.‖ If you are writing about illegal immigration, a factor that contributes to the uncertainty of the issue is our inability to determine an actual number of illegal immigrants currently in the country.

Identify at least two reasons for uncertainty in the problem

Once you have identified the uncertainties, you want to discuss the reasons these uncertainties exist and the impact of the uncertainties on the overall debate of the issue.

Proofread your work for mechanical and grammatical errors before submitting it.

Identifying the evidence and reasoning
Different observers may come to quite different conclusions regarding any issue or problem. These same observers might all have convincing evidence that brought them to quite different conclusions. Task 5 invites you to select two writings on your issue that differ from each other. You are then asked to present the evidence each writer uses to support his or her conclusion.

Background Information:
By now, you have encountered a variety of perspectives on your topic, and you have thought about the relative value of the data each writer offered in support of a particular conclusion. As you’ve noted, different observers may come to quite different conclusions regarding any issue or problem. These same observers might all have convincing evidence that brought them to quite different conclusions. This week invites you to select two good articles on your issue that represent different perspectives to look more closely at the evidence and reasoning each writer uses to support his or her conclusion.

Competency 104.1.4: Interpretation and Analysis of Information/Data
The graduate organizes information to clearly explore the complexities of the problem and potential solutions, then carefully analyzes the evidence for various positions.
Exploring evidence supporting different points of view
Supporting evidence is a key component of good reasoning. The following activities will help you identify and begin to evaluate the evidence used by your sources.

☐ Read Chapter 8, “How Good is the Evidence I?” in Asking the Right Questions.
As you read through this chapter pay particular attention to and take notes on the following concepts, ideas, and questions. Enter your findings in your study notebook or journal.

Questioning assertions, claims, and conclusions.
Sources of evidence
Clues for evaluating evidence
Use the exercises at the end of the chapter to practice evaluating evidence

☐ Read Chapter 8, “How Good is the Evidence II?” in Asking the Right Questions.
As you read through this chapter pay particular attention to and take notes on the following concepts, ideas, and questions. Enter your findings in your study notebook or journal.

Sources of evidence
Clues for evaluating research studies
Use the exercises at the end of the chapter to practice evaluating evidence

☐ Read Chapter 10, “Are There Rival Causes?” in Asking the Right Questions.
As you read through this chapter pay particular attention to and take notes on the following concepts, ideas, and questions. Enter your findings in your study notebook or journal.

Generating multiple rival causes
Confusing causation with association
Evaluating rival causes
Use the exercises at the end of the chapter to practice generating rival causes

☐ Complete MindEdge Module 6
Work through the exercises in Module 6: Weighing the Evidence from WGU’s MindEdge Modules in Critical Thinking.
The MindEdge exercises are directly aligned with your text, so as you work add to your notes from the text reading as your understanding of the concepts deepen.

Check your answers and review concepts in the texts as needed.

**Following evidence and reasoning to conclusion**
The systematic process of critical thinking demands that you begin with an open-ended question, explore diverse perspectives on the question, evaluate the evidence and reasoning included in those perspectives, and, through reasoned judgment, follow that analysis to a sound conclusion. The following activities will help you follow identify the reasoning and evidence your sources have used to arrive at their conclusions.

☐ **Compete RUA-1 Task 5**
Select two articles addressing the same question with conclusions that differ from each other.

Read the instructions for Task 5 in TaskStream and access the form provided.

You are asked to describe the evidence and reasoning each author offers to substantiate a given conclusion. You will also need to make clear why you see these two conclusions as differing from each other. At this point, you are not required to evaluate the evidence and or choose sides.

☐ **Compare your task to the checklist below before submitting:**
Summarize the evidence and reasoning that the first author uses to support his/her conclusion

Select a second article with a conclusion that differs from the first and explain the difference

Summarize the evidence and reasoning that the second author uses to support his/her conclusion

Proofread for mechanical and grammatical errors before submitting

**Identifying Biases and Assumptions-Part 1**
An important part of evaluating the reasoning of a source, or of your own thinking, involves identifying underlying biases and/or assumptions that form the foundation for your explicit reasoning. The next step is to evaluate those biases and assumptions through an application of the standards of thinking. This should help to determine the validity of these hidden but crucial aspects of reasoning, and ultimately, of the explicit reasoning itself.

**Background Information:**
Biases and assumptions are different but interrelated aspects of a person’s viewpoint and thinking. Bias literally means to demonstrate a particular partiality or prejudice for or against something. An assumption is something that is taken for granted. The two are connected in that
a particular bias can bring someone to make certain assumptions. For example, when Europeans arrived in the Americas, they thought of Native Americans as savages. By thinking of the first Americans as savages, they assumed their inhumane treatment of them was justified. At the same time, by assuming they represented a higher civilization, Europeans believed they were improving the lives of savages by imposing on them their way of life. Most Native Americans thought otherwise.

Competency 104.1.4: Interpretation and Analysis of Information/Data
The graduate organizes information to clearly explore the complexities of the problem and potential solutions, then carefully analyzes the evidence for various positions.

**Identifying underlying assumptions in reasoning of sources**
As mentioned above, all reasoning begins with assumptions. Assumptions represent what is taken for granted in the reasoning and they are often unstated. The following activities will help you identify unstated assumptions in your own reasoning and in the reasoning of others.

- **Review Chapter 5, “What Are the Value Conflicts and Assumptions?”** in *Asking the Right Questions.*
  Locate the notes you made when you read Chapter 5 in Week Four. As you review the chapter and add to your understanding of the concepts, add to and correct your notes as needed.

- **Review Chapter 6, “What Are the Descriptive Assumptions?”** in *Asking the Right Questions.*
  Locate the notes you made when you read Chapter 6 in Week Four. As you review the chapter and add to your understanding of the concepts, add to and correct your notes as needed.

- **Review pages 54-55, “Assumptions (background theory, what is given or what is taken for granted, axioms)”** in *Learning to Think Things Through.*
  Locate the notes you made when you reviewed this chapter in Week Four. As you add to your understanding of the concepts, add to and correct your notes as needed.

- **Competency Builder #4**
  Go to the CLRPS Community and locate Competency Builder #4—Assumptions, Biases, and Inferences—which can be found in the discussion threads.

  Read through the opening post and respond

  Read through posts from other students and respond as you wish

- **Locating underlying assumptions**
  Read through several of the articles you have found on your topic
By making notes in the margins, clearly identify the conclusion and the reasoning supporting the conclusion.

Once you have identified the reasoning, identify the assumptions that underlie the reasoning and jot these assumptions in the margins of your articles.

Do not confuse assumptions with claims, assertions or conclusions. The assumptions are often **unstated** in the article. They are the ideas/beliefs the author has taken for granted in his/her reasoning.

Here’s an example to help you:

**Conclusion:** We should continue to use animals for medical research

**Reasoning:** This type of medical research has the potential to save human lives

**Unstated Assumption:** The value of human life is greater than the value of animal life.

(The author has taken this idea for granted and the strength of his reasoning relies upon this assumption.)

Practice finding assumptions in the reasoning of your sources until you feel comfortable with this process.

### Identifying Biases and Assumptions—Part 2

Last week we focused on identifying assumptions. This week we will focus on bias. All persons are subject to bias, to value or not value one thing or another. Bias represents a special category of assumptions, as it too is based on unsubstantiated belief. Bias simply means we favor one thing over another, or we dislike one thing more than another.

**Background Information:**
While there is no such thing as a positive bias—since this aspect of our thinking is a limitation—there are neutral and negative biases. A negative bias is one which we do not control. That is, we are blinded by our bias and therefore can’t see weaknesses in our own biased thinking, nor can we see strengths in the thinking of those who differ from or oppose us. A neutral bias is created when we consciously identify the biases in our thinking and try to prevent the blindness that comes from bias. That is, we try to look for faults in our own thinking and for strengths in the thinking of those who differ from us.

**Competency 104.1.4: Interpretation and Analysis of Information/Data**
The graduate organizes information to clearly explore the complexities of the problem and potential solutions, then carefully analyzes the evidence for various positions.

**Searching for bias in point of view**
Every point of view contains bias, but there are two kinds of bias—neutral and negative. The following activities will help you find and evaluate the effects of negative bias in your own reasoning and in the reasoning of others.
Competency Builder #7
Go to the CLRPS Community and locate Competency Builder #7—Two Kinds of Bias—which can be found in the discussion threads.

Read through the opening post and respond

Read through posts from other students and respond as you wish

Searching for bias
Read through your articles once again, this time searching for possible bias

Make notes in the margins as you read

Determining bias often requires you to research beyond the article at hand. If you suspect bias in the reasoning or claim of a source, take the time to research the background of the source to determine position, affiliations, motives, personal interests, etc.

Be careful not to assign bias unfairly

Be aware of how your own bias might distort your evaluation of your sources

Once you know your source’s background, read the article again to determine whether his/her bias as negatively affected his/her reasoning and argument.

Journal Entry
Now that you have an increased understanding of biases and assumptions, make an entry in your journal evaluating your own biases and assumptions on your topic. Have your biases become more apparent? Are you willing to set them aside for the sake of fair-mindedness? How does your bias effect your reasoning? Have your assumptions changed as you’ve encountered new information and diverse perspectives on your topic?

Complete RUA-1 Task 6
Read the task instructions for Task 6 in TaskStream.

Using the same two articles you used in Task 5, identify the assumptions and biases of the authors.

When looking for bias, you want to distinguish between neutral bias and negative bias. Negative bias influences the reasoning and conclusion of the source.

Not every source exhibits negative bias; be careful not to assign bias where there is none.

Be aware of your own bias as you evaluate the biases of others.

Once you identify assumptions and/or bias in the two articles, the task requires that you discuss the strengths and weaknesses. Another way of asking this thinking about this might be in terms of validity. Why might someone find this
assumption valid/believable? That provides the strength. Why might someone disagree with this assumption? That provides the weakness.

Example of strength and weakness of assumption:
- Assumption: The value of human life is greater than the value of animal life.
- Strength: Our Judeo/Christian history in the United States supports the assumption of man's superiority over beast. (elaborate on this idea)
- Weakness: Over $3.9 billion dollars was spent on animal healthcare last year in the U.S. alone. This statistics shows a growing trend of placing a higher value on the life of pets . . . (elaborate on this idea)

You may need to do additional research beyond the article at hand to discuss the strengths and weaknesses of the identified assumptions.

Task 6C asks you to revisit the essay you wrote for Task 1. Identify your own initial assumptions underlying the reasoning in that essay. Also, identify whatever bias you may have held when writing that initial essay.

Answer the question: How did your assumptions and biases affect what you initially wrote? Answer this question directly and thoroughly.

Discuss the strengths and weaknesses of your assumptions (as noted in the example above).

Task 6D asks you to write a one-page essay evaluating your skill level as a critical thinker when you first started on Task 1, and evaluating your strengths and weaknesses as a critical thinker now. Be specific and thorough.

Review the rubric (found at the bottom of the task instructions) for the final RUA-2 essay. Look at the —level 4‖ column. What skills (found in that column) will you need to sharpen or acquire before you can reach level 4 in the final essay? Be specific.

Check all four parts of your task against the Task 6 rubrics to make sure each rubric requirement has been met. Proofread for mechanical and grammatical errors before submitting to TaskStream.

Interpreting Evidence
Evidence is the data on which a judgment or conclusion is based. It is important to separate the evidence or raw data from an interpretation of that evidence. It is also important to note that the same raw data or evidence can support different interpretations.

Background Information:
Critical thinkers understand there is more than one way to interpret data or evidence. Furthermore, they understand the value of reflecting on multiple ways to interpret data, weighing the strengths and weaknesses of each interpretation, in order to arrive at the most reasonable conclusion. This evaluative process is also a good way to determine the value of the conclusions that others propose. Of course, sometimes the issue is that the data is not gathered and reported clearly, accurately, or fairly.
Competency 104.1.4: Interpretation and Analysis of Information/Data
The graduate organizes information to clearly explore the complexities of the problem and potential solutions, then carefully analyzes the evidence for various positions.

Interpreting a single piece of data in multiple ways
You might find that a single piece of evidence can be used to support two opposing conclusions. The following activities will help you understand how evidence can be interpreted in many ways.

☐ Review Chapter 8, “How Good is the Evidence I?” in Asking the Right Questions.
Locate the notes you made when you read Chapter 8 in week six. As you review the chapter and add to your understanding of the concepts, add to and correct your notes as needed.

☐ Review Chapter 8, “How Good is the Evidence II?” in Asking the Right Questions.
Locate the notes you made when you read Chapter 9 in week six. As you review the chapter and add to your understanding of the concepts, add to and correct your notes as needed.

☐ Read Chapter 11, “Are the Statistics Deceptive?” in Asking the Right Questions.
As you read through this chapter pay particular attention to and take notes on the following concepts, ideas, and questions. Enter your findings in your study notebook or journal.

Digging beneath the surface of what is presented on the page: Ask—and attempt to answer—How did the author arrive at this information?

Understand —averages

Do the statistics presented —prove the conclusion?

Looking for what's not there

Clues for assessing statistics

☐ Complete MindEdge Module 7
Work through the exercises in Module 7: The Use of Statistics from WGU’s MindEdge Modules in Critical Thinking.

The MindEdge exercises are directly aligned with your text, so as you work add to your notes from the text reading as your understanding of the concepts deepen.

Check your answers and review concepts in the texts as needed.
Competency Builder #3
Go to the CLRPS Community and locate Competency Builder #3—Ambiguity and Statistics—which can be found in the discussion threads.

Read through the opening post and respond

Read through posts from other students and respond as you wish

Complete RUA-1 Task 7
Read the instructions for Task 7 in TaskStream

Look back at the articles you have read on your QAI, and identify the evidence presented by the source to support his/her conclusion.

Identify two pieces of evidence (from two different articles) for evaluation. Make sure that the evidence you identify is, in fact, evidence, not an interpretation of evidence. In other words, raw data is preferable to data that has already been interpreted by your source.

Describe the first piece of evidence and then offer two different interpretations of that evidence. Discuss how each of those interpretations might lead to differing conclusions.

Describe the second piece of evidence and then offer two different interpretations of that evidence. Discuss how each of those interpretations might lead to differing conclusions.

Check your task against the rubrics for task 7 and proofread for mechanical and grammatical errors before submitting to TaskStream.

Evaluating Evidence
When you evaluate evidence, you determine the quality or value of the data which is used as evidence to validate a conclusion. Evaluation involves the application of standards, which distinguishes it from merely indicating a preference. In short, it is important for critical thinkers to differentiate preference from fair minded evaluation.

Background Information:
Now that you've looked at the interpretation of evidence, it is time to examine the evidence itself. The purpose is to identify strengths and weaknesses in the data. Sometimes, this is an aspect of the kind of data being collected. For instance, survey research is useful to suggest trends in attitudes and preferences among those surveyed, but there are potential weaknesses in all survey data. For example, human beings may not answer a survey truthfully, and some may even misunderstand the survey questions. Of course, there are also benefits and problems with other data collection methods. Sometimes, however, the concern is with the data itself, regardless of the collection method. For example, archival data may apply to a previous population, but does not apply today.
Competency 104.1.4: Interpretation and Analysis of Information/Data
The graduate organizes information to clearly explore the complexities of the problem and potential solutions, then carefully analyzes the evidence for various positions.

Applying standards of critical thinking to evidence
All evidence is not created equally, and evidence should never be accepted at face value without holding it to the standards of critical thinking. The following activities will guide you in using the standards of critical thinking to evaluate the evidence presented by your sources.

☐ Review Chapters 8, 9, 10, and 11 in Asking the Right Questions and MindEdge Modules 6 and 7.
Review chapters 8, 9, 10, and 11 in Asking the Right Questions and MindEdge modules 6 and 7 as you deem necessary to deepen your understanding of evaluating evidence. Before completing Task 8 in the sequence you should have a good understanding of the following:

The inherent strengths and weaknesses in the different types of evidence
- How to evaluate the evidence itself
- Questions to ask about the evidence
- How to detect deceptive evidence

☐ Review Chapter 4, “Standards of Critical Thinking” in Learning to Think Things Through.
Before completing Task 8 in the sequence you should understand how to apply the standards of critical thinking to the evidence used by your sources to find the strengths and weaknesses of the evidence.

☐ Complete RUA-1 Task 8
Read the instructions for Task 8

In this task, you will use the same two pieces of evidence that you used in Task 7. Be sure to present/describe the evidence before starting your evaluation so the evaluators have a holistic piece of information.


Please note that evaluating evidence often requires research beyond what is presented in the article. This research might include looking up the original study, researching the person/organization that conducted the study, finding other evidence that corroborates or contradicts this piece of evidence. The text chapters listed above offer additional ideas for researching a piece of evidence.
Make sure you are evaluating the strengths and weaknesses of the evidence itself, not the argument nor how well the evidence supports the argument.

Check your paper against the Task 8 rubrics to make sure you've met each rubric requirement. Proofread for mechanical and grammatical errors before submitting to TaskStream.

**Thinking about your thinking**
The core process of critical thinking is self-reflection. The ultimate purpose of critical thinking is to improve the way we think. These are some of the questions critical thinkers ask to monitor and improve their thinking processes and strategies: Do I clearly understand what I am thinking? Am I clear about my purpose? Given my purpose, what are the relevant criteria for assessing and evaluating my thinking? Do I have sufficient information about my thinking? Is the information I have relevant to my purpose? Have I applied the criteria accurately to my thinking? What are the results of my evaluation, and how should I use these results to improve the way I think?

**Background Information:**
Critical thinking has two essential aspects: it is reflective and it meets high standards. Without either of those aspects, critical thinking is just thinking. This week we will focus on both of those aspects, meaning we will reflect upon our own thinking and hold our thinking to the same high standards with which we evaluated the thinking of others.

**Competency 104.1.4: Interpretation and Analysis of Information/Data**
The graduate organizes information to clearly explore the complexities of the problem and potential solutions, then carefully analyzes the evidence for various positions.

**Self-reflection**
Your analysis of any source is limited by your own thinking process. Therefore, critical thinking requires that you continually assess and correct your own thinking. The following activities will allow you time for reflection upon your own critical thinking abilities.

- **Read Chapter 5, “Putting It All Together” in Learning to Think Things Through.**
  As you read through this chapter pay particular attention to and take notes on the following concepts, ideas, and questions. Enter your findings in your study notebook or journal.
  As you read, reflect upon your own thinking patterns. How does the material apply to your own thinking?

The core process of critical thinking: Using the elements and the standards

Make note of the skills of a critical thinker. How many do you possess?

Make note of the critical thinking character traits. Make sure you understand the definition of each trait (found at the end of chapters 1-5). How many of the traits do you possess? How conscious are you of these traits? Do you regularly practice these traits?
Understand the process of thinking through critical thinking questions

☐ **Complete MindEdge Module 8**
Work through the exercises in *Module 8: Putting It All Together* from WGU’s MindEdge Modules in Critical Thinking.

The MindEdge exercises are directly aligned with your text, so as you work add to your notes from the text reading as your understanding of the concepts deepen.

Check your answers and review concepts in the texts as needed.

**Applying the standards to your own thinking**
We have applied the standards of critical thinking to the reasoning of our sources, but our own thinking must also meet those same standards. The following activities will ask you to assess your own thinking process by applying the standards.

☐ **Review Chapter 4, “Standards of Critical Thinking” in Learning to Think Things Through.**
As you review this chapter reflect upon the standards as they apply to your own thinking.

Think about your reasoning process as it relates to the problem/QAI you’ve been researching. Using the standards checklist on pages 166 and 167 apply the critical thinking standards to your reasoning process. This is best accomplished as a writing exercise, which encourages reflection at a deeper level.

What impediments challenge you as a critical thinker?

☐ **Complete RUA-1 Task 9**
Read the instructions for Task 9 in TaskStream

- As you work, keep in mind that this task is not asking you to evaluate your problem/QAI, but instead asking you to evaluate the evolution and quality of your own thinking as it relates to your QAI

To complete Task 9A, refer back to the Relevant Information Document you completed in Task 3 and review the information.

Under each section, insert any new insights you've gained through the process of applying the critical thinking concepts. You might not add new information to every section, but you should add to at least 4 or 5 areas.

Task 9B asks you to write a short essay (2 or 3 paragraphs) describing the evolution of your thinking on your topic as you worked through tasks 1-8.

- How has your knowledge on this topic evolved?
- What new insights did you gain?
What remains the same in your thinking?
What has been refined?
What is no longer relevant?

Note: if your thinking has not evolved whatsoever, there's a good chance you have skirted the critical thinking process in some manner. If we are thinking consciously and practicing the traits of critical thinkers, our thinking evolves on a daily basis.

Task 9C asks you to write an essay evaluating yourself as a critical thinker using your topic to illustrate your points.
Open the attachment called —Instruction for Task 9C Essay and follow those instructions
As you write, be clear, be direct, be specific
When discussing how your understanding of —facts‖ and —truth‖ evolved as you learned about the elements of reasoning, be specific and be sure to answer the question being asked. In other words, pick out three or four of the elements and discuss them. For example, how did learning about —point of view‖ shift your thinking about —facts‖ and —truth‖?
When describing what fallacies you found in your reasoning, identify the fallacy by name (i.e. slippery slope fallacy) and then describe how you used that fallacy
When discussing how you addressed the standards of critical thinking, be specific and be sure to answer the question being asked. In other words, choose three of four of the standards and discuss each of them in detail describing how you addressed that particular standard.
The conclusion should briefly discuss what you believe to be your strengths and weaknesses as a critical thinker. Then conclude by summarizing your understanding of critical thinking and what is involved in the reasoning process.
You might want to use headings and sub-headings in this essay to guide your reader.

Check all three portions of Task 9 against the rubrics to make sure you’ve met all requirements. Utilize APA in-text citations and references when appropriate. Proofread for mechanical and grammatical errors before submitting.

Organizing your critical analysis - Part 1
The core of any critical analysis is the application of the elements and standards of thinking to the information gathered about a problem or issue. What follows is to turn your critical thinking into an analytical essay. This task is made easier by the established conventions of analytical writing. That is, you can expect an introductory section where you define and elaborate on the problem, another section where you assess and evaluate key sources, and a conclusion where you identify possible solutions or responses to your problem, based on your analysis of key sources.

Background Information:
Through your work in RUA-1, you have completed an analysis of an open-ended problem leading you to a well-reasoned conclusion or solution. You now need to organize the material you have in order to illustrate your critical thinking process.

**Competency 104.1.5: Reaching Well-Founded Conclusions**
The graduate logically links information to form a thoughtful solution to a problem and effectively communicate the results.

**Understanding the purpose of the RUA-2 outline and essay**
Now that you have completed your analysis of your QAI, you need to demonstrate that process. The following activities will prepare you for communicating the results of your analysis.

- **Competency Builder #5**
The most common student error in RUA-2 is writing a persuasive essay instead of an analytical essay. Make sure you understand the difference. The purpose of the RUA-2 essay is not to persuade your reader to agree with your solution, but instead to demonstrate a full critical analysis of a question or problem arriving finally at a ‘best’ solution (after evaluating many alternatives) logically derived from the analysis presented.

  Locate Competency Builder #5, —Analytical versus Persuasive Writing‖ in the discussion threads in the community.

  Thoroughly read the opening thread and post a response

  Read posts of other students and respond as you wish

- **Complete MindEdge Module 9**
Work through the exercises in Module 9: Review of Critical Thinking from WGU's MindEdge Modules in Critical Thinking.

  As you work add to your notes from the text readings.

  Check your answers and review concepts in the texts as needed.

**Re-establishing the question at issue**
The first step in the communication process is to clearly re-establish your QAI. All work flows logically from this beginning question. The following activity will guide you through this process.

- **Re-establish and clearly define your question at issue.**
Before you begin working on the outline, re-establish and clearly define your question at issue. Often, as we work through a topic, we refine the QAI as we discover new information and new perspectives. Make sure you understand exactly what QAI your final essay will analyze and address. When you reach the final paragraph of your essay (the —best solution‖) it should directly answer your beginning QAI.
Presenting multiple points of view to establish open-ended problem
You can establish the open-ended nature of your QAI by communicating the multiple perspectives. The following activity will guide you through this process.

☐ Review your sources.
Make sure your sources represent diverse points of view.

Make sure you have sources that are relevant to your QAI. Set aside all sources and evidence that is only tangentially related to your QAI. In other words, if your QAI is, —What is the best way for public schools to address childhood obesity,‖ a source presenting evidence of the high numbers of fast food chains spread across America is not relevant to your QAI.

Seek out additional sources as you deem necessary to meet the critical thinking standard of breadth.

Defining the context of your question at issue
We do not reason in a vacuum. Every QAI exists within a setting or background. The following activities will help you explore the context of your QAI.

☐ Writing Activity
Explore the complexity and context of your QAI in writing. Who is concerned about this issue? Why is this issue significant? Why is this issue worthy of debate? What are the uncertainties that make the problem a difficult one to address? What are common assumptions made about this issue? Are the assumptions valid?

☐ Begin RUA-2 Task A
Read the instructions for RUA-2 Task A

Download the attachment —Guidelines for Your Outline

A traditional outline form using a hierarchical structure (i.e., I, II, III, A, B, C, 1, 2, 3, a, b, c and so forth) is appropriate for this outline

Write the —Introduction‖ section of your outline, which should include these sub-sections:
Define your QAI, the context of the problem, and discuss why this problem is open-ended (this section might be in narrative form)
Briefly introduce several diverse points of view (which you intend to include in your analysis). Example:

Fast-food corporations have a social responsibility to address obesity.

The decision to consume fast food is up to the individual, not the corporation

Fast-food advertising should be controlled by government
Controlling fast-food advertising violates free-speech. Identify uncertainties and ambiguities that contribute to the problem. Identify common assumptions made about the problem.

Organizing your critical analysis - Part 2
Having produced a clear and logical outline should make writing the final essay a manageable and productive task. Here, your job is to make all the parts fit together so the reader can follow and participate in your thinking. Readers should be able to see that you are fair-minded and reasonable, and that your conclusion comes inevitably out of your analysis of key sources and your proficient reasoning.

Background Information:
You are now ready to organize the —meat‖ of your analysis, which includes the evaluation of diverse points of view along with the evidence and reasoning provided by each of your sources.

Competency 104.1.5: Reaching Well-Founded Conclusions
The graduate logically links information to form a thoughtful solution to a problem and effectively communicates the results.

Summarizing multiple points of view with supporting evidence
The following activity will help you summarize the many diverse points of view you wish to present in your analysis.

☐ Summary
For each of the sources you plan to include in your analysis, write a summary of the source’s point of view, conclusion, and reasoning. Then identify the evidence each of your source’s use to support his/her conclusion.

Determining strengths and weaknesses of evidence
Each of your sources likely presented evidence to support his/her conclusions. The following activity will help you present your analysis of the relevant evidence.

☐ Applying Standards
Apply the standards of critical thinking to each piece of evidence. This is the same process you completed in Task 8 (Week 10); however, you might find that you need to evaluate additional evidence at this point for a complete analysis.

Determining bias in the interpretation of evidence
Detecting possible bias is a key component of evaluating the reasoning and evidence of your sources. The following activities will help you present your analysis of bias.

☐ Evaluate sources for bias, assumptions, and fallacies
Evaluate each source’s reasoning for possible bias, assumptions, and fallacies (Weeks 2, 7 and 8).

☐ Continue RUA-2 Task A
Write the —Evaluation of Viewpoints/Evidence/Reasoning‖ section of the outline
Organizing your critical analysis-Part 3

Analytical writing provides you the means to bring together the results of your hard work in this domain and to share it with others. It also provides you with concrete proof that you have produced something that has value and practical benefits. Ultimately, it is a demonstration of your growth as a thinker and a learner.

Background Information:
Your analysis of diverse viewpoints and evidence should logically lead you to consider multiple solutions/answers to your QAI. The evaluation of each of those solutions should lead you, through reasoned judgment, to a “best” solution.

Competency 104.1.5: Reaching Well-Founded Conclusions
The graduate logically links information to form a thoughtful solution to a problem and effectively communicates the results.

Considering possible solutions
Through your analysis of diverse perspectives, you have seen many conclusions to your original QAI. The following activity will help you present multiple possible solutions to your QAI.

☐ Summarize the conclusions/solutions of each of your sources.
How well does the evidence support the conclusion? Are there weaknesses in the reasoning supporting the conclusion?

Identifying implications and limitations
Every solution will have implications and limitations. Arriving at a best solution requires a careful evaluation of the implications and limitations of all proposed solutions. The following activity will help you present the evaluation of each proposed solution.

☐ Writing Activity
In a well-written source, an author will discuss the implications of his/her conclusion and also attempt to address the limitations of his/her reasoning. However, this is often not the case. It is up to you as a critical thinker to evaluate each of the possible solutions to your QAI, determine the implications and...
identify and consider the limitations. Implications involve future events that may materialize because a certain solution is put into action. When you are identified implications, think of these three categories:

1) what might possibly happen;

2) what will probably happen; and

3) what will inevitably happen.

For example, in the healthcare debate in the United States, what are the implications of including a public option where government provides medical insurance, such as with Medicare, Medicaid and Veterans Administration healthcare, but offered to all Americans?

Reasoning through best solution
Your “best” solution will also have limitations and implications. The following activities will help you evaluate and defend your conclusion.

☐ Activity
If you have conducted a full critical analysis, a “best” solution to your QAI should now begin to emerge. Resist the urge to go with your first instinct, resist the urge to go with the most popular notion. Your “best” solution should be based not upon preconceived notions, but instead upon the analysis you just completed. If your analysis has not led you to a best solution, then your analysis is not complete. Use the standards check on pages 166 and 167 of Learning to Think Things Through to discover what’s missing. Is some of the information unclear? Are you missing relevant information? Are you missing some perspective that you need? Do you have accurate information? Have you reasoned this through enough? Have you left out crucial steps? Have you jumped to conclusions? Is your reasoning free of bias? Have you over-simplified the issue?

This activity has been included because all sections of an analysis should be integrated. That is, your solutions should address the problem as it was presented in the first section of your analysis, and these solutions should be derived from and validated by the reasoning and evidence in your key sources. If you find that your key sources do not lead you to a satisfying conclusion or solution(s), you have selected inappropriate sources. This is why you need the most substantive and diverse sources you can find. Otherwise, you have no way to confirm the solutions you propose.

☐ Finish RUA-2 Tasks A and B
Write the “Conclusion” section of the outline

Present each of your potential solutions along with the limitations in this format:
First solution
- First limitation
- Second limitation (and so forth through all limitations)
Second solution (and so forth through all potential solutions)
Present your —best‖ solution along with the limitations

Check your outline against the rubrics for RUA-2 A.

Please note the following:

- Unlike the typical outline used only for the purposes of helping writer organize his/her thoughts, this outline has an outside audience. Therefore, enough detail must be added so that your audience can clearly understand the specifics of your analysis. Make sure you include enough detail to meet the requirements of the rubrics.
- However, specificity matters more than quantity. In other words, be selective and use reasoned judgment to decide what to include and what to exclude. Don’t simply include everything —just in case. This approach usually backfires, making it more difficult for the graders to find the components they expect to see.

Complete Task B, check against the rubrics, and submit Task A and B together.

Understanding analytical writing vs. persuasive writing

As mentioned above, the purpose of this essay is to demonstrate your critical analysis. The following activity will help you distinguish between an analytical essay and a persuasive essay.

☐ Review

Review the outline you’ve completed to make sure it follows an analytical approach rather than a persuasive approach. In an analytical essay, your own views on your QAI should not be apparent to your readers until the end when you arrive at a best solution based upon your evaluation of all perspectives. Note: your —best‖ solution is not based upon preconceived notion or personal opinion. It is derived through reasoned judgment based upon your critical analysis. The path of logic leading to the —best‖ solution should be apparent to any reader of your essay.

Introducing the question at issue

Now that you have a well organized outline that represents an analytical approach, you are now ready to begin writing. The following activities will help you write the introduction of your essay.

☐ Begin RUA-2 Task C

Write the introduction section of your essay. The following components should be included in the introduction:

- Question at Issue: Clearly define and discuss the context of your question at issue. (Note: All of your evidence and all of your potential solutions must directly address your question at issue.)
- Viewpoints: Establish the QAI as an open-ended problem by offering multiple perspectives and opinions. This should be quite brief—just an intro of multiple perspectives without going into detail. The detail will come later in the essay.
• Uncertainties and Ambiguities: Discuss the uncertainties, ambiguities, and controversies that contribute to the difficulty of addressing the issue.
• Assumptions and Biases: Discuss common assumptions made or biases held about your issue in general and discuss the impact of those assumptions/biases on the debate.

While headings and sub-headings are not required in the essay, they are strongly recommended. Headings guide your reader through your analysis and allow the reader to more easily locate the required components.

Communicating the evaluation of multiple sources
The following activities will help you move from outline form into essay form to illustrate your analysis of multiple sources.

☐ Continue RUA-2 Task C
Write the evidence evaluation section of your essay. The following components should be included in this section:
  • Summarize the perspective, argument, and reasoning of your first source.
  • Discuss biases and assumptions in the reasoning
  • Present first piece of evidence supporting this argument
  • Discuss strengths of evidence
  • Discuss weaknesses of evidence

Note: You have already employed the standards of critical thinking to evaluate each piece of evidence. At this point you are simply communicating the results of your analysis.

  • Present second piece of evidence for this source along with analysis.
  • Summarize the perspective, argument and reasoning of your second source along with all evidence and analysis
  • Continue this process for all sources you wish to present in your analysis.

Note: this section is the —meat— of your essay. Be thorough, clear, direct, and concise. Apply the standards of critical thinking to what you’ve presented here. Is it clear? Is it accurate? Is it precise? Use the standards check on pages 166 and 167 in Learning to Think Things Through to review your own work.

A reminder: the use of headings and sub-headings are strongly recommended.

Communicating the analysis of multiple solutions
Your proposed solutions should logically follow your analysis. In other words, any outside reader should be able to clearly see the logic in the solutions being proposed based upon the analysis of the evidence. The following activities will help you communicated your proposed solutions along with their limitations and implications.
Finish RUA-2 Task C

Write the final section of your essay. This should include a presentation and an analysis of potential solutions, and end with a —best‖ solution arrived at through reasoned judgment. The following components should be included in this section:

- Present your first proposed solution including a discussion of the solution’s implications and the limitations of implementing this solution. Be sure to provide the reasoning that links your evidence evaluation to this proposed solution.
- Present your second proposed solution with a full discussion as noted above.
- Continue with as many proposed solutions as you wish to present.
- Present your —best‖ solution along with a discussion of the solution’s implications and the limitations of implementing this solution. Then present your reasoning. In other words, defend this solution as the —best‖ solution in spite of its limitations. Why is this solution better than other proposed solutions?

Apply the standards of critical thinking to your entire essay. Is your analysis logical? Is the logic easy to follow? Have you relied upon critical thinking rather than long-held beliefs to arrive at your best solution? Is your analysis free of bias? Is it fair-minded? Return to the standards check on pages 166 and 167 in Learning to Think Things Through to assist in this process.

- Proofread your essay for the following:
  - Syntax, spelling, word usage, grammar issues.
  - Holistic communication: Does the essay —flow‖ logically from one sentence to the next, from one paragraph to the next, and from one section to the next? Do your paragraph breaks make sense?
  - Edit for repetition and wordiness.
  - APA citations: Have you included all necessary in-text citations in APA format? Have you included a reference page in APA format?
  - Check your essay against the rubrics to ensure you’ve met at least a level four in every area before submitting your essay to TaskStream.

Conclusion

Congratulations on completing the Reasoning and Problem Solving in the Context of the Humanities Part I and II domains in the liberal arts at WGU! It has been a long journey, but your diligent work has paid off. Completing this domain has supplied you with an invaluable set of skills that you can apply to almost any facet of life you encounter—the ability to think and problem solve critically. As you progress through your program, remember the information you have learned here and how you can apply reasoning and problem solving concepts to your personal and professional life as well as your WGU student career.

Feedback

If you wish to provide feedback on this course of study, please contact Bryan Benson at bbenson@wgu.edu.