

AP Research

Course Description

The AP Research course allows students to deeply explore an academic topic, problem, issue, or idea of individual interest. In AP Research, students cultivate the skills and discipline necessary to conduct independent research and inquiry in order to produce and defend their scholarly work. Students design, plan, and implement a yearlong investigation to address a research question they have generated, developed and revised. Through this inquiry, they learn research methods, employ ethical research practices, and access, analyze, and synthesize information. Students reflect on their skill development, document their processes, and curate the artifacts of their scholarly work through a process and reflection portfolio (PREP). The course culminates in an academic paper of 4,000–5,000 words (accompanied by a performance, exhibit, or product where applicable) and a presentation with an oral defense component.

Materials

1. Access to the internet in class, home, or nearby
2. Computer or similar device that supports internet access
3. Google account and Trello account. The nature of this course requires these apps for the long term execution of projects, writing, and organizing
4. Blank, college-ruled, paper
5. Pens, pencils, colored pencils and/or highlighter (anything you prefer for annotating a document)
6. One 1.5” durable three-ring binder for the Process and Reflection Portfolio (PREP) Binder. These can be of any color or design. You will be using this binder throughout the year to document your research, it should reflect you.

Student Success

Attendance:

Daily attendance and active follow up will result in the strong development of required skills and a strong completion of AP Tasks.

Participation:

Your daily and positive participation in class will insure a productive learning environment and prepare you for consistent contribution.

Preparation:

Homework, larger tasks, and in-class work will build on prior knowledge and skills. Preparing for class consistently scaffolds your learning to maximize your skills.

Integrity:

Beyond the AP plagiarism statement, listed below, your ability to have respect for yourself, your work, and the work of others, prepares you for an honest approach to life and research skills developed in this class.

AP Capstone Policy on Plagiarism and Falsification or Fabrication of Information.

Participating teachers shall inform students of the consequences of plagiarism and instruct students to ethically use and acknowledge the ideas and work of others throughout their course work. The student's individual voice should be clearly evident, and the ideas of others must be acknowledged, attributed, and/or cited.

A student who fails to acknowledge the source or author of any and all information or evidence taken from the work of someone else through citation, attribution, or reference in the body of the work, or through a bibliographic entry, will receive a score of 0 on that particular component of the AP Seminar and/or AP Research Performance Task. In AP Seminar, a team of students that fails to properly acknowledge sources or authors on the Team Multimedia Presentation will receive a group score of 0 for that component of the Team Project and Presentation.

A student who incorporates falsified or fabricated information (e.g. evidence, data, sources, and/or authors) will receive a score of 0 on that particular component of the AP Seminar and/or AP Research Performance Task. In AP Seminar, a team of students that incorporates falsified or fabricated information in the Team Multimedia Presentation will receive a group score of 0 for that component of the Team Project and Presentation.

Positive Learning Environment:

Feedback from instructor, peers, and self-reflection will be given and received in a positive light. While skills are developed, we will learn to build on criticism and learn to give constructive criticism.

Communication:

We will be discussing arguments and ideas, not individuals in the classroom.

Major Assessments

All assessments will be based on the QUEST model of AP Capstone through assignments that build student PREP Binders. We will always clarify the assessment focus which will promote clarity and mastery.

1. **Process and Reflection Portfolio (PREP) - PREP Binder - 100% of course grade**
This task will be completed over the entire course. The exacts of the PREP binder are listed under the like-named heading below. Assignments will guide students through a comprehensive documentation of their research process. A completed PREP Binder will generally document or contain the following: topic exploration, research problem-statement, research question-revision, proposal inquiry, methods development, Institutional Review Board (IBR) approval, source annotations, process reflection, completion of Academic Paper Presentation and Oral Defense, as specifically outlined below.
2. **Academic Paper (AP) and Presentation and Oral Defense (POD) - AP 75% and POD 25% of AP score**
Students design, plan, and implement a yearlong, in-depth study or investigation in an area of personal interest through a chosen or designed inquiry method and develop a well-reasoned argument based on the evidence collected in an academic paper of 4,000–5,000 words. As a culmination of their research, students deliver (using appropriate media) a presentation and orally defend their research design, approach, and findings. Students whose academic paper is accompanied by an additional piece of scholarly work (e.g., performance, exhibit, product) must arrange for the teacher and panelists to view this work prior to the presentation and oral defense. Throughout the inquiry process, students communicate regularly with their teacher and, when appropriate, consult with an internal or external expert.

Grading Scale

The grading scale will adhere to the norms of Northland Preparatory Academy with grades and feedback made available through Family Link, Office Hours, Google Classroom and through the conference-grading implementation.

Process and Reflection Portfolio (PREP)

This class portion will be used to guide students through their work and will provide an avenue to document major milestones. Student's 1.5" three-ring PREP Binder will contain the following items.

The indications in parentheses refer to the actual presentation of the given element in the PREP Binder.

1. Development Chapter
 - 1.1. Final project title (designed by student)
 - 1.2. Final problem statement (template given)
 - 1.2.1. Must include enough *annotated bibliographies* to provide context for the problem statement
 - 1.3. Established research question (designed by student)
 - 1.3.1. At minimum, three iterations, including the final product, must be presented
 - 1.4. Potential mentors/expert advisors (designed by student)
 - 1.5. Research Proposal Part A *must be approved by instructor* (portions of Research Proposal Part A and B may be gathered at different points of time)
 - 1.5.1. Aims of Research (Part A)
 - 1.5.2. Background/Context (Part A)
 - 1.5.3. Literature Review (Part A)
 - 1.5.4. Further Questions(Part A)
 - 1.5.5. Method (Part B)
 - 1.5.6. Potential Outcomes and Limitations of Research (Part B)
 - 1.5.7. Outline Program of Work (Part B)
 - 1.5.8. Bibliography (Part B)
2. Methods Chapter
 - 2.1. Research Proposal Part B *must be approved by instructor and IBR*
 - 2.1.1. IRB Application
 - 2.1.2. Aims of Research (Part A)
 - 2.1.3. Background/Context (Part A)
 - 2.1.4. Literature Review (Part A)
 - 2.1.5. Further Questions(Part A)
 - 2.1.6. Method (Part B)
 - 2.1.7. Potential Outcomes and Limitations of Research (Part B)
 - 2.1.8. Outline Program of Work (Part B)
 - 2.1.9. Bibliography (Part B)
 - 2.2. Inclusion of all reproducible documents
 - 2.2.1. Institutional Review Board (IBR) Approval (template given)
 - 2.2.1.1. If your request is denied, include the denied request along with the approved request
3. Literature Chapter

- 3.1. Complete annotated bibliography (discipline recommendation)
 - 3.1.1. Students' annotations must focus on its relevant connection to the *purpose* of the project
- 3.2. Any reproducible sources printed and contained in binder

4. Academic Paper and Presentation and Oral Defense Chapter
 - 4.1. One iteration of a completed rough draft containing the following focus areas:
 - 4.1.1. Introduction
 - 4.1.2. Method, process, or approach
 - 4.1.3. Discussion, analysis, and/or evaluation
 - 4.1.4. Conclusion and future directions
 - 4.1.5. Bibliography (unannotated)
 - 4.1.6. Peer scored AP Rubric
 - 4.2. Final draft of Academic Paper (4,000 - 5,000 word count) with finalized elements from item 4.1
 - 4.2.1. Appendices containing appropriate information
 - 4.2.2. Self-scored AP Rubric
 - 4.3. Presentation and Oral Defense
 - 4.3.1. Google Drive or Dropbox or similar link to prepared and self-recorded presentation (may be a private link)
 - 4.3.2. Peer scored and self-scored POD Rubric

5. Reflection Chapter
 - 5.1. Narrative paper (template given)
 - 5.1.1. Compose a serious and wide-scoped reflection about your experiences, both positive and negative, through this research project, specifically:
 - 5.1.1.1. Why and when did your research question evolve?
 - 5.1.1.2. What obstacles did you encounter while finding sources for your literature review?
 - 5.1.1.3. How did you arrive at your research method design? Did it change before your final approval from the IRB? How?
 - 5.1.1.4. What did you experience while aligning your research to your field at large? Were you confident it would be received well by that particular community? Why or why not?
 - 5.1.1.5. What was your experience when implementing your research method design? Any unforeseen issues? Moments of clarity?
 - 5.1.1.6. Did your time-management skills developed in Capstone improve or help in a clear way?
 - 5.1.1.7. What was your experience when designing your presentation?
 - 5.1.1.8. Were you confident in executing your presentation and defense? Why or why not?
 - 5.1.1.9. Do you feel you are prepared for research efforts in the future?
 - 5.1.2. Include a best practices list, where you offer advice for upcoming AP Research students

Pacing Map

Definitions

There are recurring activities throughout the units of this pacing map. Those recurring activities are listed in italics within the activity sections and denote areas that consistently develop presentation skills, reflection skills, and clear progress.

Forums:

students will formally update the class in a presentation-style at minimum every two-weeks. They will allow for questions from their peers and the instructor at the end of their presentation. This is to both clarify their research development and execution and develop their presentation skills and organization. The instructor will use *Forums* to also inform weekly *Work checks* and will give students general outline for information that must be covered for clear progress. Finally, students will get feedback on their presentation skills, articulation, and presence with specific goals outlined for improvement.

Work check:

Without exception, students will have a minimum of one weekly conference with the instructor, as time allows - even more. These conferences will serve to clarify questions, develop missing information from their PREP Binders, and plan for forums. Ultimately, these serve as a checkpoint for students to adhere to a productive timeline and feel confident moving forward with their projects.

Reflection:

The ultimate item in the PREP Binder is the reflection narrative. In order to construct a comprehensive reflection, students will develop skills to reflect immediately on their work. At the culmination of each pacing unit, students will be given guiding questions to reflect on their work which will also inform their final reflection chapter of their PREP Binder.

For example: *How has does your research connect to your field at large? Did your research method design change in any way and how? Did you encounter any obstacles collecting studies for your literature review? Did you employ appropriate strategies for preparing your forums in this unit and what were they?*

Unit I: Scholar Emulation

August - September (46 days)

This unit examines multiple disciplines where students determine discipline-specific formatting, method use, analyses, and interpretations. During this process, students will explore broad, personal interests and begin narrowing their focus towards a problem-statement and preliminary research question.

Skills

Question and Explore

LO 1.1D: Articulating the purpose and significance of the scholarly inquiry.

LO 1.1E: Developing and revising a focused research question/project goal

LO 1.2A: Retrieving, questioning, organizing, and using prior knowledge about a topic.

LO 1.4A: Evaluating the relevance and credibility of the source of information and data in relation to the

inquiry.

LO 1.4A: Evaluating the relevance and credibility of the source of information and data in relation to the inquiry.

Understand and Analyze

LO 2.1B: Summarizing and explaining a text's main idea or aim while avoiding faulty generalizations and oversimplification.

LO 2.2B: Evaluating the relevance and credibility of evidence used to support an argument, taking context into consideration. **LO 2.2D:** Evaluating and critiquing others' inquiries, studies, artistic works, and/or perspectives.

LO 2.3B: Evaluating potential resolutions, conclusions, or solutions to problems or issues raised by an argument.

Evaluate Multiple Perspectives

LO 3.1A: Identifying, comparing, and interpreting multiple perspectives on or arguments about an issue.

LO 3.2A: Evaluating objections, implications, and limitations of alternate, opposing, or competing perspectives or arguments.

Synthesize Ideas

LO 4.2A: Interpreting, using, and synthesizing qualitative and/or quantitative data/information from various perspectives and source (e.g., primary, secondary, print, nonprint) to develop and support an Argument.

LO 4.3A: Attributing knowledge and ideas accurately and ethically, using an appropriate citation style.

LO 4.4A: Extending an idea, question, process, or product to innovate or create new understandings.

Team, Transform, Transmit

LO 5.1D: Adapting an argument for context, purpose, and/or audience.

LO 5.3A: Reflecting on and revising their own writing, thinking, and creative processes.

LO 5.4A: Engaging in peer review to provide constructive responses to one another's work, appropriate to the stage of a project's development.

Activities

1. Inspect peer-reviewed, scholarly studies that exemplify multiple disciplines and contrasting study methods
 - 1.1. Style
 - 1.1.1. Dissect at least three articles in different fields to note style specific language and citation standards
 - 1.2. Methods
 - 1.2.1. Dissect at least three articles in the students chosen field of interest to report on the variety of methods used in the research design process.
 - 1.3. Analysis
 - 1.3.1. Dissect the analysis portions of the chosen articles to report on the analysis and if/how the authors stay within their field paradigm in terms of presenting information, both written and in presentation.
 - 1.4. Situation
 - 1.4.1. Published work itself
 - 1.4.1.1. How do these works align with their literature reviews and context sections?

- 1.4.2. Field at large
 - 1.4.2.1. How do these works clearly link or zoom out, to their larger fields?
2. Develop topics of interest
 - 2.1. Peer exploration
 - 2.1.1. Through *Work Check, Forum* and research, students will work in tandem to demonstrate the importance or relevance of their topics
 - 2.2. Meaningful problems
 - 2.2.1. Through *Work Check, Forum* students will work to establish problems found in their field that are: relevant and purposeful to the field at large and beyond
 - 2.3. Gap determination
 - 2.3.1. Through *Work Checks, Forums*, close reading practices, reflection on student selected studies, and through open dialogue, students will determine any relevant gaps in the research they have uncovered.
 - 2.4. *Forums*
3. Narrow topic focus
 - 3.1. Peer exploration
 - 3.1.1. Based on further research, weekly *Workcheck* and reporting to your peers in our weekly *Forums*, students will narrow their topic into a research question and the beginning of a problem-statement
 - 3.2. Discipline alignment
 - 3.2.1. Through class-provided resources, students will determine exactly which academic field their topic falls under
 - 3.3. Gap fill (what kind of data fills the gap)
 - 3.3.1. Based on further research or clarification of existing sources, *Workcheck* and *Forums* students will note different types of data that can potentially fill a noted gap in their narrowed topic
 - 3.4. Methods exploration (how does the method collect that data? What kinds of data are being collected?)
 - 3.4.1. Through class-provided resources and based on potential data types, students will explore generally accepted ways of collecting varying data
4. *Forums*
5. *Work Check*
6. *Reflections*
 - 6.1.1. Students will take time to write out their reflections to this point in their process based on the supplied guiding questions. All written submissions must be tied to the formal reflection narrative in Unit V
7. PREP Binder
 - 7.1. Positively progress through Item 1: Development Chapter

Summative Assessments

Using PREP tasks as outlined under the PREP Binder heading above, students will demonstrate an understanding and application of the skills specified in this unit.

Resources

Understood resources from AP Seminar

1. Trello
2. Google Apps (docs, sheets, slides, forms, drawing, keep, scholar)
3. Ebsco Host
4. Coconino County Public Library System
5. Northern Arizona University Cline Library

New to AP Research

1. Academic Paper (AP) Rubric
2. AP Research Course and Exam Description
3. William, Nicholas. *Research Methods: The Basics*. Routledge, NY, 2011.
4. Turabian, Kate L., et al. *A Manual for Writers of Research Papers, Theses, and Dissertations: Ninth Edition*. University of Chicago Press. 2017.
5. PREP Binder and associated templates
6. Problem Boards

Sources

Flynn, Mark A., et al. "Objectification in Popular Music Lyrics: An Examination of Gender and Genre Differences." *Sex Roles* (2016) vol. 75, issue 3/4: pgs. 164-176.

Orsini, Arthur F. and O'Brien, Catherine. "Fun, Fast and Fit: Influences and Motivators for Teenagers Who Cycle to School." *Children, Youth and Environments* (2006) Vol. 16 Issue 1: pgs. 121-132.

Wright, Dan and Wief, Martin J. "Teacher Judgement in Student Evaluation: A Comparison of Grading Methods." *Journal of Educational Research* (1988) Sep/Oct, Vol. 82, Issue 1: pgs. 10-14.

Unit II: Methods, Design, Purpose, and Alignment

October - November (33 days)

Students must progress from an established problem-statement and research question to discover the data needed to add to the discipline's scholarly conversation. The process of research design encompasses a thorough understanding of the kinds of data that exist, discipline-standards in studies, ethics that guide data collection, and how to align that data to the student's purpose.

Skills

Question and Explore:

LO 1.1D: Articulating the purpose and significance of the scholarly inquiry.

LO 1.5B: Designing, planning, and implementing a scholarly inquiry

LO 1.5C: Demonstrating perseverance through setting goals, managing time, and working independently on a long-term project.

Understand and Evaluate:

LO 2.3B: Evaluating potential resolutions, conclusions, or solutions to problems or issues raised by an argument.

LO 2.2D: Evaluating and critiquing others' inquiries, studies, artistic works, and/or perspectives.

Evaluating Multiple Perspectives:

LO 4.1B: Selecting and consistently applying an appropriate disciplinary or interdisciplinary approach to form a scholarly argument or aesthetic rationale.

LO 4.4A: Extending an idea, question, process, or product to innovate or create new understandings.

Synthesize Ideas

LO 4.1B: Selecting and consistently applying an appropriate disciplinary or interdisciplinary approach to form a scholarly argument or aesthetic rationale.

LO 4.4A: Extending an idea, question, process, or product to innovate or create new understandings.

Team, Transform, Transmit

LO 5.4B: Engaging in peer review to receive and consider responses to their work.

Activities

1. Basics of data collection
 - 1.1. Range of collection methods
 - 1.1.1. Students will have group discussion concerning selected pages regarding data collection methods presented in Williams' *Research Design: The Basics* and appropriate handouts from the AP Research Workbook
 - 1.2. Qualitative data
 - 1.2.1. Students will explore a variety of qualitative data and reflect on what kinds of data is being collected in their field
 - 1.3. Quantitative data
 - 1.3.1. Students will explore a variety of quantitative data and reflect on what kinds of data is being collected in their field
 - 1.4. Mixed-method approach
 - 1.5. Ethics in research
 - 1.5.1. Students will answer questions concerning consent, privacy, and safety based on denied research proposals and approved research proposals and information from *Research Design: The Basics*
 - 1.6. *Forums*
 - 1.6.1. These specific forums will relate to students' specific data needs, possible research implementation and, limitations, and considerations concerning the development of their research design. Supporting literature will be expected at all forums.
2. Data Specific Design
 - 2.1. Data determination
 - 2.1.1. Students will make finals calls on the types of data they will collect based on the *Levels of Abstraction* presented in *Research Design: The Basics*.

- 2.2. Parameters for research
 - 2.2.1. Students will determine more concretely, how they will design their research in accordance with norms in research and their fields
- 2.3. Analysis and discussion
3. *Forums*
4. *Reflections*
 - 4.1. These specific reflections will help students recount how their research designs are aligning to their larger field and fill a documented gap in research
 - 4.2. Students will take time to write out their reflections to this point in their process based on the supplied guiding questions. All written submissions must be tied to the formal reflection narrative in Unit V
5. Rubric Digest
 - 5.1. AP rubric summary and discussion
 - 5.2. Score sample AP Papers
6. *Reflections*
 - 6.1.1. These particular reflections will cover what students hope to see happen in the next Unit along with guiding questions that tackle how they've arrived at their decisions and how they feel they align with their field at large and earlier problem statements.
 - 6.1.2. Students will take time to write out their reflections to this point in their process all written submissions must be tied to the formal reflection narrative in Unit V
7. *Work Check*
8. PREP
 - 8.1. Positively progress through Item 2: Methods Chapter

Summative Assessments

Using PREP tasks as outlined under the PREP heading, students will demonstrate an understanding and application of the skills specified in this unit.

Resources

Includes All from Unit I

1. AP Research Student Workbook
2. AP Research Course and Exam Description
3. William, Nicholas. *Research Methods: The Basics*. Routledge, NY. 2011.
4. Cline Library, Amy Turville - research librarian
5. Northland Preparatory Academy Institutional Review Board
6. Mentors and/or Expert Advisors

Sources

Students will pull discipline-specific sources which exemplify research norms in that discipline. These sources must be peer-reviewed, scholarly research.

Unit III: Method Completion and Drafting Academic Paper

November - January (35 days)

After determining the appropriate data needed to ‘fill’ the gap in the literature and deciding how their research method will align with their research-statement, students must execute their proposed research design. While this process concludes, students will draft their Academic Paper with a primary focus on their Literature Review.

Skills

Question and Explore:

LO 1.1D: Articulating the purpose and significance of the scholarly inquiry.

LO 1.3A: Accessing and managing information using effective strategies

LO 1.4A: Evaluating the relevance and credibility of the source of information and data in relation to the inquiry.

LO 1.5B: Designing, planning, and implementing a scholarly inquiry

LO 1.5C: Demonstrating perseverance through setting goals, managing time, and working independently on a long-term project.

LO 1.5D: Employ ethical research practices.

Understand and Evaluate:

LO 2.2B: Evaluating the relevance and credibility of evidence used to support an argument, taking context into consideration.

LO 2.2D: Evaluating and critiquing others’ inquiries, studies, artistic works, and/or perspectives.

LO 2.3A: Connecting an argument to broader issues by examining the implications of the author’s claim.

Evaluating Multiple Perspectives:

LO 3.1A: Identifying, comparing, and interpreting multiple perspectives on or arguments about an issue.

LO 3.2A: Evaluating objections, implications, and limitations of alternate, opposing, or competing perspectives or arguments.

Synthesize Ideas

LO 4.1A: Formulating a well-reasoned argument, taking the complexities of the problem or issue into consideration.

LO 4.1B: Selecting and consistently applying an appropriate disciplinary or interdisciplinary approach to form a scholarly argument or aesthetic rationale.

LO 4.2A: Interpreting, using, and synthesizing qualitative and/or quantitative data/information from various perspectives and source (e.g., primary, secondary, print, nonprint) to develop and support an argument.

LO 4.2B: Providing insightful and cogent commentary that links evidence with claims.

LO 4.3A: Attributing knowledge and ideas accurately and ethically, using an appropriate citation style.

LO 4.4A: Extending an idea, question, process, or product to innovate or create new understandings.

LO 4.5A: Offering resolutions, conclusions, and/or solutions based on evidence considering limitations and implications.

Team, Transform, Transmit

LO 5.1A: Planning and producing a cohesive academic paper, considering audience, context, and purpose.

LO 5.1B: Adhering to established conventions of grammar, usage, style, and mechanics.

LO 5.1D: Adapting an argument for context, purpose, and/or audience.

LO 5.4A: Engaging in peer review to provide constructive responses to one another's work, appropriate to the stage of a project's development.

LO 5.4B: Engaging in peer review to receive and consider responses to their work.

Activities

1. Execute approved studies
 - 1.1. Students will implement their research design
 - 1.2. Collecting and Analysing
 - 1.2.1. Students will begin to collect and analyze their data as specified in their approved research proposals
 - 1.3. *Forum*
 - 1.3.1. These forums will focus on continued progress of students' implementation plans, preliminary results, and surprises
 - 1.4. *Reflections*
 - 1.4.1. These reflections will focus on continued progress of students' implementation plans, preliminary results, and surprises
 - 1.4.2. Students will take time to write out their reflections to this point in their process all written submissions must be tied to the formal reflection narrative in Unit V
2. PREP
 - 2.1. Positively Progress through Items
 - 2.1.1. 3: Literature Chapter
 - 2.1.2. Through 4.1.5: Academic Paper Chapter

Summative Assessments

Using PREP tasks as outlined under the PREP heading, students will demonstrate an understanding and application of the skills specified in this unit.

Resources

Includes All from Unit I, and Unit II

1. Peer editing guide- <http://writing2.richmond.edu/writing/wweb/peeredit.html>

Sources

All sources for this unit are student selected and will demonstrate the scholarly nature of their inquiry, method design, and analysis. Furthermore, their sources will provide the conversation in which their results will contribute.

Unit IV: Academic Paper and Presentation and Oral Defense

February - April (58 days)

Students will use peer-editing to assist them in completing the Academic Paper (75% of AP score) based on the Academic Paper Rubric as described through the PREP Binder. Students will also develop a multimedia presentation based on the Presentation and Oral Defense (25% of AP score) Rubric that will not exceed twenty

minutes. This presentation will be given in front of a three member panel and the public. Oral defense questions will come from a predetermined list of possible questions.

Skills

Question and Explore:

LO 1.5C: Demonstrating perseverance through setting goals, managing time, and working independently on a long-term project.

LO 1.5D: Employ ethical research practices.

Understand and Evaluate:

LO 2.2B: Evaluating the relevance and credibility of evidence used to support an argument, taking context into consideration.

LO 2.2D: Evaluating and critiquing others' inquiries, studies, artistic works, and/or perspectives.

LO 2.3B: Evaluating potential resolutions, conclusions, or solutions to problems or issues raised by an argument.

Evaluating Multiple Perspectives:

LO 3.2A: Evaluating objections, implications, and limitations of alternate, opposing, or competing perspectives or arguments.

Synthesize Ideas

LO 4.1A: Formulating a well-reasoned argument, taking the complexities of the problem or issue into consideration.

LO 4.1B: Selecting and consistently applying an appropriate disciplinary or interdisciplinary approach to form a scholarly argument or aesthetic rationale.

LO 4.2A: Interpreting, using, and synthesizing qualitative and/or quantitative data/information from various perspectives and source (e.g., primary, secondary, print, nonprint) to develop and support an argument.

LO 4.2B: Providing insightful and cogent commentary that links evidence with claims.

LO 4.3A: Attributing knowledge and ideas accurately and ethically, using an appropriate citation style.

LO 4.4A: Extending an idea, question, process, or product to innovate or create new understandings.

LO 4.5A: Offering resolutions, conclusions, and/or solutions based on evidence considering limitations and implications.

Team, Transform, Transmit

LO 5.1A: Planning and producing a cohesive academic paper, considering audience, context, and purpose.

LO 5.1B: Adhering to established conventions of grammar, usage, style, and mechanics.

LO 5.1C: Communicating information through appropriate media using effective techniques of design.

LO 5.1D: Adapting an argument for context, purpose, and/or audience.

LO 5.1E: Engaging an audience by employing effective techniques of delivery and performance.

LO 5.1F: Defending inquiry choices and final product with clarity, consistency, and conviction.

LO 5.4A: Engaging in peer review to provide constructive responses to one another's work, appropriate to the stage of a project's development.

LO 5.4B: Engaging in peer review to receive and consider responses to their work.

Activities

1. Complete and submit AP Paper
2. Develop Impactful Presentation
 - 2.1. Organize information
 - 2.1.1. Students will determine the best flow of information and what information is critical to deliver
 - 2.2. Why the slide?
 - 2.2.1. Students will make professional use of slides to only bring more impact to their organized ideas and words
 - 2.3. Gestures, pacing, and passion
 - 2.3.1. Students will ‘choreograph’ parts of their presentations, emphasize that they are authorities, and prepare to execute their presentations under control and poise - all of these items will have been developed through Forums and practice
3. *Forums*
4. *Work Check*
5. PREP
 - 5.1. Positively progress through items 4.2-4.3.2

Summative Assessments

Students will upload their finalized Academic Papers to their AP Digital Portfolio by **Wednesday, April 3rd** and execute their Presentation and Oral Defense by **Monday, April 29th**.

Resources

Includes All from Unit I, and Unit II, and Unit III

1. www.toastmasters.org
2. www.ted.com
3. John Kynor, Distinguished Toastmaster (DTM), Greater Southwest Toastmasters Speech Officer

Sources

All sources for this unit are student selected and will demonstrate the scholarly nature of their inquiry, method design, and analysis. Furthermore, their sources will provide the conversation in which their results will contribute. The sources may be selected from a broad range so long as they are relative to the paper’s purpose.

Unit V: PREP Completion and Reflection

May (13 days)

The sharing and reflection of the research process not only clarifies the experience for the researcher but provides the context for future research students.

Skills

Team, Transform, Transmit

LO 5.3A: Reflecting on and revising their own writing, thinking, and creative processes.

LO 5.3C: Reflecting on the larger significance of engaging in the overall inquiry process and producing a completed scholarly work.

Activities

1. PREP
 - 1.1. Positively progress through Item 5: Reflection Chapter for the completion of your PREP Binder
2. Reflective Presentation
 - 2.1. Orally present a five minute reflection that overviews your complete PREP Binder

Summative Assessments

Completion and oral reflection through each student's PREP Binder.

Resources

1. Completed PREP Binder

This completes the AP Research Syllabus for SY' 18-19
