



Instructor: Mrs. Angela Seiler

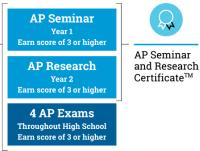
Tutoring: 2:30 - 3:30 p.m. daily or by appointment @ https://shorturl.at/HCylL

2:30 - 4:00 Tues / Thurs. *No Friday Tutoring

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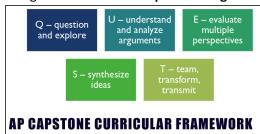




Course Goals/Overview:

AP Research, the second course in the AP Capstone experience, allows students to deeply explore an academic topic, problem, issue, or idea of individual interest. Students design, plan, and implement a yearlong investigation to address a research question. Through this inquiry, they further the skills they acquired in the AP Seminar course by learning research methodology, employing ethical research practices, and accessing, analyzing, and synthesizing information. Students reflect on their skill development, document their processes, and curate the artifacts of their scholarly work through a process and reflection portfolio. 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.

AP Research is centered around the five "Big Ideas" of the AP Capstone Program—the QUEST.



Through participation in the AP Capstone, students are provided the opportunity to internalize the QUEST framework in order to draw upon this knowledge as they move forward in their academic careers.



Required Materials:

- Access to Google Classroom,
- AP Classroom/Digital Portfolio
- PREP (found on AP Classroom)
- RRPS Gmail account
- Spiral Notebook (Research Journal)
- Various other online resources made available throughout the semester.

Possible Texts:

- Think Like a Freak by Steven D. Levitt & Stephen J. Dubner
- Practical Research, 12th ed., by Paul D Leedy and Jeanne Ellis Ormrod PDF
- The Immortal Life of Henrietta Lacks by Rebecca Skloot

Process and Reflection Portfolio (PREP)(4a)

You will maintain a portfolio in this class. The PREP will address all aspects of the QUEST framework that students have been working with since the beginning of AP Seminar.

Your PREP will assist and display student progress on their Academic Paper and Presentation and Oral defense. It will also include student reflections. Students will complete specific assignments for the PREP, receive feedback on their work (to the extent and in the manner allowed by CollegeBoard), and meet individually with their teacher at least twice during each six week grading period to discuss the contents of the PREP (4b).

Per the AP Research Course Description, assignments will include (but are not limited to) the following:

- The evolution of interest in the chosen topic and research question.
- Ongoing annotated bibliography of the outside sources collected.
- Evidence of the research process, including resources; analysis of evidence; directions in which the inquiry or project seems to be leading; changes to initial assumptions
- Reflection on challenges encountered and the solutions found.

Students will maintain their PREP through Google Drive. Please note that all PREPs will be archived at the end of the year in the rare case that CollegeBoard should ask for evidence that students completed the PREP (4a).

Generally speaking these are the documents that validate and "historicize" your research. They are vital to your success and will be evaluated regularly.

^{2.} Minor assignments comprise anything from homework to reading quizzes to meeting itemized deadlines as you construct your research paper.

Grades

Below is a list of grading categories, their worth, and a list of potential assignments for each category. Please note that these are merely the kinds of assignments that each category may contain. Assignments and their category will depend on their purpose, when and how they are assigned, and need of the class.

Note: Category names and weights are pre-determined by the RRPS district. How assignments are distributed within those categories is at the **discretion of the teacher**.

Category	Percentage	Description
Practice	30%	In-class work, peer review, homework assignments, and other participation/discussion tasks.
		Time spent off task, missing make-up work, or a lack of focus or participation in group work will reduce a student's grade.
Assessment	70%	All assignments contained in the Process and Reflection Portfolio (PREP) as described below, quizzes, individual projects and other written responses.

Make-Up Work and Late Work:

- Work assigned when a student is absent will become **make-up work**. Students will have one day for each day absent to make up work. Work received any later will be checked for originality but may not receive teacher feedback.
- Homework/Classwork/PREP Assignments are intended to help students practice and prepare for major sections of the Academic Paper and POD. These assignments can only be turned in until the submission date for the major section of the AP or POD we are working toward. Such assignments will receive full credit if they are submitted before that time.
- Major sections of the paper can only receive completion grades. Except in special circumstances, they must be turned in by the due date (taking our make-up work policy into account). After that date those sections will receive a 10% deduction per day.
- We are a team working on your projects. If you run into significant problems and road blocks, come talk to me so we can avert problems before they become dire.

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 Assessment 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 zero on that particular component of the AP Seminar and/or AP Research Performance Assessment 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.

The Capstone plagiarism policy is more advanced than a typical English department, however, appropriate for this class/level.

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If a student is caught plagiarizing **anything** for this class, regardless of the point value or weight of the assignment, their automatic grade for that assignment will be a zero. This **includes presenting Al generated work** as original work. If the student is caught plagiarizing a second time, they will fail the course for the semester.

If the plagiarized assignment is a paper, the student must rewrite, <u>but they will not receive credit for that paper.</u> Under no circumstances will any student be allowed to make up a plagiarized assignment for credit, but they must make up the assignment to maintain academic integrity. We expect all Capstone students to adhere to these rules, and we hope all students and parents will understand these rules, accept them and work together with us to enforce them.

AP Capstone Policy on Use of Generative Artificial Intelligence (AI)

DEFINITION OF GENERATIVE AI IN AP CAPSTONE COURSES

Generative AI tools use predictive technology to produce new text, charts, images, audio, video, etc. This includes not only ChatGPT and similar Large Language Models (LLMs), but also many writing assistants or plug-ins that are built on this or similar AI technologies. Generative AI tools can be contrasted with other AI-based tools that do specific tasks—for example, that help students with grammar, but don't generate new writing.

POLICY ON ACCEPTABLE GENERATIVE AI USE IN AP CAPSTONE COURSES

Generative AI tools must be used ethically, responsibly, and intentionally to support student learning, not to bypass it. Accordingly, all performance tasks submitted in AP Seminar and AP Research must be the student's own work. While students are permitted to use Generative AI tools consistent with this policy, their use is optional and not mandatory.

Students can use generative AI tools as optional aids for exploration of potential topics of inquiry, initial searches for sources of information, confirming their understanding of a complex text, or checking their writing for grammar. However, students must read primary and secondary sources directly, perform their own analysis and synthesis of evidence, and make their own choices on how to communicate effectively both in their writing and presentations. It remains the student's responsibility to engage deeply with credible, valid sources and integrate diverse perspectives when working on the performance tasks. Students must complete interim "checkpoints" with their teacher to demonstrate genuine engagement with the tasks.

A table that describes what constitutes acceptable use of generative AI at different phases of the work to complete the performance tasks.

REQUIRED CHECKPOINTS AND AFFIRMATIONS

To ensure students are not using generative AI to bypass work, students must complete interim "checkpoints" with their teacher to demonstrate genuine engagement with the tasks. AP Seminar and AP Research students will need to complete the relevant checkpoints successfully to receive a score for their performance tasks. Teachers must affirm, to the best of their knowledge, that students completed the checkpoints authentically in the AP Digital Portfolio. Failure to complete the checkpoints will result in a score of zero on the associated task.

- In AP Seminar, teachers assess the authenticity of student work based on checkpoints that take the form of short
 conversations with students during which students make their thinking and decision-making visible (similar to an
 oral defense). These checkpoints should occur during the sources and research phase (IRR and IWA), and
 argument outline phase (IWA only).
- In AP Research, students must complete "checkpoints" in the form of in-progress meetings and work in the Process and Reflection Portfolio (PREP).

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AP Seminar and AP Research teachers are also required to affirm, to the best of their knowledge, that the student's final submission is authentic student work.

College Board reserves the right to investigate submissions where there is evidence of the inappropriate use of generative AI as an academic integrity violation and request from students copies of their interim wo

Ethical Research

The U.S. Department of Health and Human Resources outlines in the Belmont Report specific regulations for the protection of human subjects involved in the research process. All students' research proposals will be vetted for potential harm to human subjects to determine the need for an institutional review board approval. Students will receive instruction on ethical research practices during Unit 1 of the course.

Cell Phones:

Per CHS/RRPS policy, cell phone use during class is prohibited. Students may only use cell phones for academic purposes if explicitly allowed by their teacher. If a student uses a cell phone without explicit permission, the phone will be confiscated for the period. Repeated offenses will result in a discipline referral.

Expert Advisors

Students are strongly encouraged to identify and work with at least one expert advisor. This advisor should be knowledgeable in a discipline related to the individual student's research topic. If the advisor is outside of the CHS community, parents must approve of the advisor. More information on expert advisors will be provided in the coming weeks.

AP Research Exam:

The AP Research exam consists entirely of the through-course assessment. Students will NOT take a pencil and paper exam in May when other AP Exams are administered. The Academic Paper is worth 75% of the exam score, while the Presentation and Oral Defense is worth 25%. Students will submit their work via a College Board provided digital portfolio similar to that which was used last year in AP Seminar. The portfolio also provides students with access to an EBSCO database and TurnItIn.com software. Because of the structure and nature of the AP Research course, it is required that all students enrolled in AP Research take the exam.

Graduation Cords

Graduation cords will be available to students earning a grade of C or better in the course.

AP Research Course Overview

Please note that this is an outline of the semester with potential activities. We will shift and adjust this schedule as we go to best meet our needs as a class.

First Semester

During the first semester, you will build upon the skills of AP Seminar as you learn deeper research concepts, skills, and methods that will enable you to complete your AP Research project.

Unit #1

Weeks One and Two: Bridging the gap.

- 1. Get to know each other and explore areas of interest.
- 2. Identify the AP Seminar skills that AP Research will build upon as well as the differences between the two classes.
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- 3. Defining and locating "a gap" in the research: Students will identify and define new or unfamiliar terms on the AP Research Rubric such as method, implications, limitations, etc. In addition they will conduct a close reading of an article and identify these concepts within it.4 Finally, introductory conversations on what is meant by "gap" will promote the idea of formulating a narrow research question going forward. (1b)
- 4. "Finding the Missing Piece" activity **(T)**—As a team, complete the puzzle and identify the "missing piece" to introduce the missing piece metaphor that will guide your initial research and the development of your research questions during weeks 1-6.
- 5. Introduction and expectations for the PREP (4a) (1f) (4b)
- 6. Introduce reflective logs to add to PREP to be collected for grading. (1f)(4a)

Week Three: Ways of Knowing and Rubrics

- 1. Introduce discipline specific ways of knowing—Complete and present group poster outlining group's assigned Ways of Knowing (1g) (E)
- 2. Identify the elements of the Academic Paper and reflections of the rubric in sample Academic Paper (1b) (U)
- 3. Summer Reading Quiz and group project over summer reading.

Week Four/Five: Developing Good Research Questions (1a) (Q, U, T)

- 1. Identify the elements of effective research/problem statements
- 2. Introduce and practice reverse problem statements based on papers in various disciplines.
- 3. Introduce and practice narrowing sample research questions.
- 4. Draft your own problem statement and research questions.
- 5. Peer Review research questions, working to clarify each of the following in the questions: focus, purpose, context, variables, and feasibility.
- 6. Teacher Interview #1 (4b)
- 7. Help students strengthen their project elements.
 - a. Show the video Using Reflection to Refine Your Research Question. (APC, 8 min)

Week Five: Collecting Sources to Situate Students in BOK (U, E, T).

- 1. Introduction to databases and source evaluation.
- 2. "50 Source List" collection.

Week Six: Citations Styles, Source Evaluation, and the Annotated Bibliography (U, E, T).

- 1. Explore various citation styles and work in groups to identify the format and emphasis of each style. Present findings to the class.
- 2. Poster Project #1 with elevator speech, peer/teacher (4b).
- 3. Choose a discipline-appropriate citation style and begin work on the first five citations and annotations.
 - a. Each annotation must include the following: a summary of the significant findings or key information from the source; an evaluation of the credibility and relevance of the source as it pertains to your inquiry; a reflection on whether or not you think you will use the source in your academic paper and if not, why not. (1b) (1f)
- 4. Create expert teams for each citation style in use by class members. Review annotations for accuracy (1e) (1f).
- 5. Interview with teacher after 5 sources (4b).

Assessments:

- 1. Close reading (QUEST) exercises with sample papers: Students will discover and disclose various elements of the QUEST process in other people's research.
- 2. Applying rubric to sample papers.
- 3. Poster projects coupled with elevator speech. specific feedback on what is strong, and give specific feedback on what would make an aspect of the work come across as stronger (Optional). Have students give feedback on each others' progress using the Reflection and Feedback Activity (1f).
- 4. Each student will select two (or more) papers that investigate an identical, or very similar, topic. The student will write a summary comparing how each paper approaches the topic (perspective) and how that perspective is related to the sources chosen as well as mode of presentation the paper employs (1c).

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- 5. Assumptions activities: Students will engage in a story telling game whereby what is absolutely true must be compared against what "might be" or "could be" true. The purpose of the exercise is to help students recognize that assumptions are made and allowed in research; however, recognizing assumptions and articulating them as such is essential.
- 6. Evaluating, critiquing, and revising sample research questions: Students will work with the research ideation-formatting tool provided at AP Research training. "There is a problem in or with _____." Students will fill out numerous of these guided thought practices eventually centering on a few of their favorites. Evaluation will be done individually, in small teams, and as a large group(1a) (1g).
- 7. First "elevator pitch" with poster: Students will prepare a three- to five-minute explanation or "elevator pitch" of their intended research question and process and present it to the class using a poster they have prepared (1a) (1g).

Unit #2

Week Seven: Introduction Element of the Academic Paper (1g) (Q).

- 1. Annotated Bibliography (First 5 Sources) DUE
- 2. Teacher interview (4b).

Week Eight: Lit Review/Annotated Bibliography Continued

1. Annotated Bibliography Sources 6-10 and 11-15 DUE (1b, 1c).

Weeks Nine and Ten: Choosing a Research Method or Research Methodology (Q).

- 1. Introduce various processes of inquiry in original research.
- 2. Work in groups to identify the approach, design, and method of various inquiry processes (1d).
- 3. Introduce NCUR and other undergraduate research databases—choose undergraduate research studies in the same general field as your project and data mine for research questions and study design (1c, 1d).
- 4. NCUR +1: Students identify models of research methods in NCUR and discipline specific articles and studies (1d).

Week Eleven: Ethical Research Practices

- 1. Introduce Ethical Research Practices and the IRB (2b).
- 2. Review plagiarism definition, generative AI definition distribute handout from CED handouts of acceptable vs. non acceptable usage (2b).
- 3. Review the policy on ethical research to include AP Capstone Policy on Plagiarism and Falsification of Information (2b).
- 4. Do the Academic Integrity presentation (2a).
 - a. Go over the AP Capstone® Policy on Plagiarism and Falsification or Fabrication of Information (CED, p. 62) as part of this.
 - b. Assign as homework Avoiding Plagiarism Citations and Checks With Turnitin video AP Classroom (2a).
- 5. Ethical and Safe Research Practices presentation (2a).
 - a. The presentation uses Lesson 19 on ethical research from the AP Research Workshop Handbook.
 - b. Homework for the presentation includes these APC videos:
 - i. Engaging in Ethical Research Practices 1: Key Terminology (9 min)
 - ii. Engaging in Ethical Research Practices 2: Working with Participants (10 min)
 - iii. Engaging in Ethical Research Practices 3: Institutional Review Boards (9 min)
- 6. Students will then be presented with a variety of exemplar situations for which they will discuss whether IRB approval is required and/or whether proper attribution and citation have been used (Q) (2a).

Week Twelve: Inquiry Proposal (Preparation and reflection on overall QUEST)

1. Introduce Expert Advisors—discuss the role of advisors, receive and review materials to help in recruiting and informing an Expert Advisor.

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- 2. Meet with students individually to give feedback that will help them improve their proposals.
- 3. Introduce, Draft, Revise, and submit Inquiry Proposal.
- 4. Students will review sample inquiry proposals -
- 5. Complete a feasibility review followed by peer and teacher review (1f)(4b).
 - a. Create a plan for the work to be done.
 - b. Help students with permissions and safety
 - c. Letters of introduction (for interfacing with adults who need to give approvals for data collection)
 - d. Human subjects consent forms and checklist
 - e. IRB application (consider having an IRB evaluate all proposals by early November
- 6. Inquiry Proposal DUE (3) (1f).
- 7. Teacher evaluation and **approval/rejection** of the final version of the proposal. If rejected, students will need to revise and resubmit **(1f)(4b)**.

Week 13: Introduce Methods section

- 1. Work in teams to identify the elements of successful Methods section in papers from various disciplines (Q) (1e).
- 2. Moving from your Literature Review to Your Own Research (S) (1f).

Weeks 14-15: Methods--designing your method of data collection.

- 1. IRB or Research Design drafts due—students submit all necessary documents (surveys, questionnaires, interview protocols, informed consent forms, etc.) to demonstrate adherence to ethical research practices and, if necessary, to submit to an IRB or students submit their research design plan (1g).
- 2. Peer review of research methods documents (T) (1e).
- 3. Test surveys and questionnaires on peers where applicable.
- 4. Have students fill out the Method Elements Outline.
 - a. Review the outlines to assess students' progress.
 - b. Meet with students individually to give feedback that will help them improve their proposals.

Assessments:

- 1. PREP (see explanation above) (4a).
- 2. Poster projects coupled with elevator speech. specific feedback on what is strong, and give specific feedback on what would make an aspect of the work come across as stronger (Optional). Have students give feedback on each others' progress using the Reflection and Feedback Activity (1f).
- 3. Annotated bibliographies (included in PREPs) (4a).
- 4. Methods Elements Outline
- 5. First WIP report
- 6. WIP reports will replace impromptu speeches in Unit 2. Students will have two to five minutes to share their findings, their struggles, their intentions, and their progress with their peers in an informal presentation. PREP will provide the student with much of the information he/she will impart. Peer feedback is encouraged (1e) (1g) (4a).
- 7. Final Inquiry Proposal Form sheet is due (October 23). The Inquiry Proposal Form will be reviewed and approved, or not approved, by the instructor.(3).

Unit #3

Weeks 16: Data Collection/Methods Section

- 1. What is a code? How and when do you create and use a code?
- 2. Revisit Literature Review. Does it still do what you need it to do?

Week 17: Composition of Methods Procedure and Instruments (3).

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- 3. Initial draft of Methods section due (How and What Chart) (S) (1g).
- 4. Peer Review Methods section (T).

Week 18: Finals Week

- 1. First Semester Final Exam--Slide Presentations: (5).
- 2. Update on Your QUEST:
 - a. What have you accomplished (5)?
 - b. Where are you headed next? (Your presentation must be exactly 3 slides and between 2.5 to 3.5 minutes long) (1f, 1g).

Assessments:

- 1. PREP (see explanation above) (4a)
- 2. Poster projects coupled with elevator speech. specific feedback on what is strong, and give specific feedback on what would make an aspect of the work come across as stronger (Optional). Have students give feedback on each others' progress using the Reflection and Feedback Activity (1f).
- 3. Annotated bibliographies (included in PREPs)
- 4. WIP reports (see above)
- 5. Peer reviews: Students will collaborate with each other on the early drafts of their work (1f)(1g).
- 6. Socratic seminar (1g) Students develop and apply written and oral communication skills identified in the learning objectives within the Big Idea 5: Team, Transform, and Transmit (1f) (1g).

Second Semester:

The second semester will focus primarily on the deep work of data coding, analysis, and reporting. We will continue to situate our work within the **QUEST**.

Weeks 19-24

- 1. Students will use this time to continue doing secondary research, revising and implementing their own research methods and beginning the stages of analysis and coding of their data. Peer Review, PREP assignments, and regularly scheduled meetings with instructors and, where applicable, expert advisors will continue to take place during this time (4a).
- 2. Students will view examples of the Results sections of academic papers from various disciplines to identify successful elements.
- 3. Students will also view various academic presentations including TED talks and conference proceedings to identify successful elements of such presentations and to begin preparing for their own presentations (5).
 - **Rough Draft of Results, Product, or Findings section of paper due for Peer Review due during Week 24**

Weeks 25-27

- 1. Students will begin to draft the Results, Product of Findings section of their paper and, then, the Conclusions and Future Directions section. Peer Review, PREP assignments, and regularly scheduled meetings with instructors and, where applicable, expert advisors will continue to take place during this time (4a) (5).
- 2. Students will view examples of the Conclusions and Future Directions sections of academic papers from various disciplines to identify successful elements.
- 3. Students will begin working on the visual element of their Oral Presentation (5).
- **Rough Draft of Conclusions and Future Directions section due for Peer Review due during Week 26**(5).
- **Rough Draft of entire paper due for Peer Review during Week 27**(5).

Assessments:

- 1. PREP (see explanation above) (4b).
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- 2. Poster projects coupled with elevator speech. specific feedback on what is strong, and give specific feedback on what would make an aspect of the work come across as stronger (Optional). Have students give feedback on each others' progress using the Reflection and Feedback Activity (1f).
- 3. Annotated bibliographies (included in PREPs)
- 4. Peer reviews: Students will be partnered with a classmate who will provide a guided peer review of his/her partner's research paper before the final draft is submitted. The AP Research rubric will be used to construct the tally sheet and guide the peer review process (1e).

Weeks 28-31

- 1. Students will design their Oral Presentation (5).
- 2. Students will practice presenting their Oral Presentation and responding to sample questions asked by their peers (5).

April 1: Final Draft of Academic Paper Due

Mid-April: Presentation and Oral Defense

Late-April through May: The Crucible or another text from the 11th grade curriculum

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