

Instructor's Name: Ms. Brenda Andrus

Course Title: AP Capstone Research

Course Location: A 138

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Availability: The best method of contact is via email. I check my email daily,

and I will do my best to respond within 24 hours.

• PREP Journal

Formative Assessments: • Inquiry Proposal Form

• IRB (if applicable)

Annotated Bibliographies

• Literature Review

Exam Assessments: • Academic Paper (4,000-5,000 words)

• Presentation and Oral Defense (15-20 minutes)

Supplies: • Loose leaf paper (at least one full package)

Pens

• Flashdrive (optional)

Gmail account

• Internet access (Canvas)

Databases access (supplied by BCPS)

Grading Scale:

• PREP journal entries: 25-50 points

• Annotated Bibliographies: 25-50 points

• Inquiry Proposal form: 25 points

Peer Reviews: 20 pointsReflections: 20 points

• Literature Review: 100 points

• Mini-presentations: 50-100 points

• Class participation: 10 points, weekly

Welcome to AP Capstone: Research!

AP Research allows students to deeply explore an academic topic, problem, or issue of individual interest. Through this exploration, students design, plan, and conduct a year-long research-based investigation to address a research question. In the AP Research course, students further skills acquired in the AP Seminar course by understanding research methodology, employing ethical research practices, and accessing, analyzing, and synthesizing information as they address a research question. Students explore their skill development, document their processes, and curate the artifacts of the development of their scholarly work in a portfolio. The course culminates in an Academic Paper (AP) of approximately 4000–5000 words (accompanied by a performance or exhibition of product where applicable) and a Presentation with an Oral Defense (POD).

Goals

Although the topic of each research study will vary, the course requires students to plan and conduct a study or investigation. The course provides opportunities (activities/assignments) for students to:

- Understand principles of discipline-specific research methods (e.g., qualitative, quantitative, mixed)
- Employ appropriate disciplinary research methods to develop, manage, and conduct an in-depth study or investigation in an area of student's own interest, culminating in a 4000–5000 word paper (accompanied by an additional piece of scholarly work where applicable to be performed or exhibited).
- Present (using appropriate media) and defend the research design, approach, and findings to a panel.
- Document their processes and curate the artifacts of the development of their scholarly work in a portfolio.

Course Materials

Online and Electronic Resources:

Students will be required to responsibly use a number of online and electronic resources, either for research or composition purposes. These include Google Scholar, EBSCO, Gale, PRO

Quest, Britannica Online, Microsoft Academic, Google Docs, and Purdue University's Online Writing Lab (OWL).

Texts

- Various academic papers from a variety of sources including NCUR and College Board for specific lessons
- The Bedford Researcher, Fifth Edition
- Practical Research Planning and Design, Eleventh Edition, by Paul D. Leedy and Jeanne Ellis Ormrod
- AP Capstone Research Course and Exam Description. (2017). New York: College Board.
- AP Research Workshop Handbook and Resources (2017). New York: College Board.
- Past AP student work (used with permission) for exemplars and discussion pieces

Plagiarism

This course adheres with fidelity to the AP Capstone policy on Plagiarism, which states the following:

"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 Written Team Report 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 Assessment Task. In AP Seminar, a team of students that incorporates falsified or fabricated information in the Written Team Report will receive a group score of 0 for that component of the Team Project and Presentation."

As such, plagiarism will not be tolerated in this course. Any assignment found to have been plagiarized will be dealt with immediately through removal of credit for the assignment and conference with grade-level administrators, parents, and involved student(s).

The Academic Paper

The Academic Paper (AP) is an original 4,000-5,000 word academic paper that includes the following components: (1) Introduction; (2) Method, Process, or Approach; (3) Results, Product, or Findings; (4) Discussion, Analysis, and/or Evaluation; (5) Conclusion and Final Directions; and (6) Bibliography. While the AP Research Teacher and/or a consultant will provide guidance in the development of this paper, it is the student's own work. Plagiarism with NOT be tolerated; any sources used by the student through direct quotations and/or paraphrasing, must be properly cited. Failure to do so will result in a ZERO grade for that component of the course (See "Academic Dishonesty" below).

The research process in AP Research is not simply about collecting evidence or facts and then piecing them together. The research process is about *inquiry*—asking questions and coming to solutions and conclusions through serious and critical thinking, discussion, and reflection. The student researcher will seek relevant information in articles, books, and other sources and develop an informed perspective built upon, <u>but not merely derivative of</u>, the ideas in the examined material. As a result, the research process is *recursive*, meaning students will continuously revisit ideas, seek new information when necessary, and reconsider and refine their research question(s), topic, and/or approach.

To keep track of this process of inquiry, students are required to keep a digital Process and Reflection Portfolio (PREP), a formative assessment tool shared with the AP Research Teacher. The PREP will allow students to document their experiences in the course. Students will continually use the PREP to chart their engagement with the QUEST ideas, with special attention paid to:

- Their choice of a research question and what prompted their interest in the topic
- Their research process, including important sources (documents, people, media)
- Analysis of evidence as it becomes available
- Changes in the direction of the project and/or initial assumptions
- Ways in which the students have worked on their own or as part of a larger intellectual community
- Challenges encountered and solutions attempted

To demonstrate these experiences, the PREP may include annotated bibliographic entries of important sources, conversations with the Teacher and/or Consultant, personal reflections, commentary about course assignments and class notes, coursework assigned by the Teacher, and any other insights that contribute to a rich description of the development of the student in the course. As students will be required to have one-on-one appointments with the AP Research Teacher throughout the course to discuss their work, it is hoped the student will be able to manage his/her time effectively and use these meetings to continue developing and revising their work throughout the year. In-class assignments may also be collected digitally through the PREP.

Upon completion of the Academic Paper (AP), students will be required to plan and deliver a final summative assessment in the form of a Presentation of their work and an Oral Defense (POD). The presentation is expected to utilize various media to support and enhance the student's report of key findings, description of the chosen approach and any challenges, and a defense of the findings by answering questions posed by a panel comprised of the AP Research Teacher and two others.

Prior to engaging in research, students will submit to the AP Research Teacher an Inquiry Proposal Form, which clearly identifies the topic of study, research question(s), preliminary research, and methodological and ethical considerations. Only once approval has been granted will the student be allowed to begin the research process in earnest. If the proposed inquiry requires a more extensive consideration of ethics and potential harm (for example, involvement

of human subjects), approval will not be granted until the Proposal has passed review by an Institutional Review Board (IRB).

AP Research students will be held to high standards of academic honesty and ethics. <u>Preparing fairly and effectively for the completion of the paper and presentation tasks requires advanced planning and time management; many difficulties with plagiarism arrive when students leave work to the last minute. Keep track of all sources used so you do not misattribute information. *AP Research work will be submitted to Turnitin.com.*</u>

Curriculum Framework

AP Research is not tied to a specific content area. Rather, it emphasizes, and strives for competency in, core academic skills. Students gain Essential Knowledge (EK) ("What students will know...") and develop and apply distinct skills identified in the Learning Objects (LO's) ("What students will demonstrate...") of the Enduring Understandings (EU's) ("What students will remember in the long-term...") within the following five Big Ideas, represented by the acronym **QUEST** (p. 9, Course and Exam Description).

Question and Explore: Read critically; pose questions and identify issues that compel you to want to explore further.

Understand & Analyze Arguments: Use specific tools to break down and idea of argument into parts that make sense to you. These tools include re-reading, questioning in the text, considering multiple perspectives.

Evaluate Multiple Perspectives: Identifying the variety of perspectives/POV/arguments of an issue. Consider any bias to determine the validity of that point of view.

Synthesize Ideas: Creating new perspectives after evaluating other varying perspectives. Establishing a unique position or claim using a variety of resources designed for a specific audience.

Team, Transform, and Transmit: A collaborative endeavor communicated clearly and effectively so as to transform both participants and audience.

AP Capstone Reasoning Processes (AP Research Course and Exam Description, p.7)

The AP Capstone program encourages students to develop and practice reasoning processes that help them make intentional, strategic decisions. These reasoning processes are embedded within the following learning objectives:

- Situating—being aware of the context of one's own as well as others' perspectives, realizing individual bias can lead to unfounded assumptions
- Choosing—making intentional and purposeful choices, realizing choices have both intended and unintended consequences
- Defending—being able to explain and justify personal choices, logic, line or reasoning, and conclusions
- Connecting—seeing similarities within and across disciplines, concepts, and cultures that may at first seem disparate

Employing Research and Inquiry Methods (p. 9, Course and Exam Description)

In the classroom and independently (as well as possible consulting with a mentor or expert), students learn and utilize research and inquiry methods to develop, manage, and conduct an indepth investigation of an area of personal interest, culminating in an academic paper of 4,000-5,000 words that includes the following:

- 1. Introduction
- 2. Method, Process, or Approach
- 3. Results, Product, or Findings
- 4. Discussion, Analysis, and/or Evaluation
- 5. Conclusion and Future Directions
- 6. Bibliography

General Timeline

August: Create and share digital PREP portfolio with AP Research Teacher; discuss course expectations and the Performance Tasks using sample papers; choose a topic/issue; carry out preliminary research; begin to develop an annotated bibliography; and finalize research question(s) and proposals. Work in PREP.

September: Present a preliminary inquiry proposal; work on proposals and reflect on feedback; continue with preliminary research, continue working on annotated bibliography; work in PREP; engage in one-on-one meetings with AP Research teacher and peer review activities; finalize Inquiry Proposal Form. Inquiry Proposal Forms due September 30th.

October: Finalize the choice and design of their inquiry method, as well as research question(s), with careful consideration of ethical issues that may arise; engage in one-on-one meetings with AP Research teacher and peer review activities; work in PREP, finish annotated bibliography. Annotated Bibliography due October 14th. Develop information from Annotated Bibliography into a Review of the Literature. Work on research methods. Research Methods section due October 31st.

November: Conduct research (interviews, surveys, additional projects, products, performances) needed to support paper; start analyzing findings; work in PREP; begin your study; engage in one-on-one meetings with AP Research teacher and peer review activities; finish introduction and literature review. Introduction and literature review sections due November 30th.

December: Continue collecting data; work in PREP; work on literature review to ensure synthesis of what has already been done. Data collection complete by December 9th.

January: Finalize Results section. Results, Product, or Findings section due January 6th. Continue analyzing findings; work in PREP; engage in one-on-one meetings with AP Research teacher and peer review activities; work on Discussion section. Discussion, Analysis, and/or

Evaluation section due January 13th. Obtain feedback on paper and revise. First rough draft of paper due January 20th.

February: Work in PREP; engage in one-on-one meetings with AP Research teacher and peer review activities; continue working on paper and reflecting on feedback; at least two peer reviews by February 17th.

March: Finalize paper. Academic Paper due March 10th. Work in PREP; engage in one-on-one meetings with AP Research teacher and peer review activities; plan Presentation and Oral Defense.

April: Work on presentation; engage in one-on-one meetings with AP Research teacher and peer review activities; work in PREP; Presentation and Oral Defenses April 10th-April 14th (Dates are subject to change). All Academic Papers, Presentations and Oral Defenses will be scored and results uploaded by the AP Research Teacher to the College Board by April 30th.

May: Complete AP Exams in other subject areas to qualify for the AP Capstone Diploma; finish and submit PREP; work on AP Research course for next year; revise and submit work to journals, conferences, or other academic competitions; final exams

Pacing Guide

Unit 1, Weeks 1-4: Introduction to AP Research; Review of Seminar; AP Research Skills

In this unit, students will work on bridging the gap between AP Seminar and AP Research. We will review the five Big Ideas, and discuss what they look like in AP Research. Students will examine AP Research sample papers, and students will receive the rubrics for AP Research.

Learning Objectives and Essential Knowledge:

EK:1.1C1, 1.1C2, 1.1C3, 1.1D1, 1.1D2, 1.1D3, 1.1E1, 1.1E2, 2.1B1, 2.1C1, 2.1C2, 2.2A2, 2.2B1, 2.2B2, 2.2B3, 2.2B4, 2.2B5, 2.2B6, 4.1B1, 4.1B2, 4.1B3, 4.1B4
LO: 1.1C, 1.1D, 1.1E, 2.1B, 2.1C, 2.2A, 2.2B, 4.1B

Enduring Understandings:

- 1.1: Personal interest and intellectual curiosity inspire investigation of topics or issues that may or may not be clearly defined. A well-crafted investigation explores the complexity of an issue or topic. Further inquiry can lead to unexpected conclusions, resolutions, innovations, or solutions.
- 2.1: Authors express their ideas, perspectives, and/or arguments through tier works. The first step in evaluation an author's perspective or argument is to comprehend it. Such comprehension requires reading, viewing, listening, and thinking critically.
- 2.2: Authors choose evidence to shape and support their arguments. Individuals evaluate the line of reasoning and evidence to determine to what extent they believe or accept an argument.
- 4.1: Scholarly works convey perspectives and demonstrate effective reasoning that have been selected for the intended audience, purpose, and situation.

Assessments

Formative:

- Understanding terms associated with research
- Graphic representations of processes
- Library/search skills and tools
- Create problem statements and research questions
- Teacher-student conferences

Summative:

- PREP entries
- Preliminary problem statements
- Preliminary and finalized research questions
- Inquiry Proposal Form
- Annotated bibliography entries

Unit 2 (Weeks 5-8): Literature Review, Research, and Methods

Learning Objectives and Essential Knowledge:

EK: 1.1D3, 1.1E1, 1.1E2, 1.2A1, 1.2A2, 1.2A3, 1.3A1, 1.3A2, 1.3A3, 1.3A5, 1.3A6, 1.3A7, 2.1B1, 4.1B1, 4.1B2, 4.1B3, 4.3A1, 4.3A2, 4.3A3, 4.3A4, 4.3A5, 5.1E2, 5.1F1, 5.3A2, 5.3A3, 5.4A1, 5.4B1, 5.4B2

LO: 1.1B, 1.1E, 1.1A, 1.2A, 1.3A, 1.3B, 1.3C, 2.1A, 2.1B, 2.2A, 2.2B, 2.3A, 2.3B, 3.1A, 3.2A, 4.1A, 4.2A, 4.2C, 4.3A, 4.4A, 5.1A, 5.1B, 5.1E, 5.1F, 5.3A, 5.4A, 5.4B

Enduring Understandings:

- 1.1: Personal interest and intellectual curiosity inspire investigation of topics or issues that may or may not be clearly defined. A well-crafted investigation explores the complexity of an issue or topic. Further inquiry can lead to unexpected conclusions, resolutions, innovations, or solutions.
- 1.2: Strengthening understanding of a concept or issue requires questioning existing ideas, using what is known to discover what is not known, and making connections to prior knowledge.
- 1.3: The investigative process is aided by the effective organization, management, and selection of resources and information. Appropriate technologies and tools enable the scholar to become more efficient, productive, and credible.
- 2.1: Authors express their ideas, perspectives, and/or arguments through tier works. The first step in evaluation an author's perspective or argument is to comprehend it. Such comprehension requires reading, viewing, listening, and thinking critically.
- 4.1: Scholarly works convey perspectives and demonstrate effective reasoning that have been selected for the intended audience, purpose, and situation.
- 4.3: Responsible participation in the scholarly community requires acknowledging and respecting the prior findings and contributions of others.
- 5.1: How a perspective or argument is presented affects how people interpret or react to it. The same perspective or argument may be developed or presented differently depending on audience, purpose, and context.
- 5.3: Reflection increases learning, self-awareness, and personal growth through identification and evaluation of personal conclusions and their implications.

5.4: Scholars perform, present, and/or produce their work within a larger community. Throughout the inquiry process, scholars interact with and benefit from the scholarly community through thoughtful engagement with the opinions and critiques of others.

Assessments

Formative:

- Research terminology review/application
- Evaluate credibility of sources (PAARC test)
- Create problem statements and research questions
- Speed-dating
- Rubric exploration with sample papers
- Presentation peer-reviews
- Refining search skills and creating an annotated bibliography
- Synthesize data to form a new perspective
- Teacher-student conferences

Summative:

- PREP entries
- Annotated bibliography entries
- Elevator speech/poster presentation
- Inquiry Proposal Form

Unit 3 (Weeks 9-13): Plagiarism, Literature Review, Methods of Research

Learning Objectives and Essential Knowledge:

EK: 1.1C2, 1.1E2, 1.4B1, 1.4B2, 1.4B3, 1.4B4, 1.4B5, 1.4B6, 1.4B7, 1.4B8, 1.4B9, 1.4D1, 1.4D3, 5.4A1, 5.4B1, 5.4B2

LO: 1.1C, 1.1E, 1.4B, 1.4D, 5.4A, 5.4B

Enduring Understandings:

- 1.1: Personal interest and intellectual curiosity inspire investigation of topics or issues that may or may not be clearly defined. A well-crafted investigation explores the complexity of an issue or topic. Further inquiry can lead to unexpected conclusions, resolutions, innovations, or solutions.
- 1.4: There are multiple ways to investigate questions, problems, and issues. Methods should be aligned with the purpose of the inquiry.
- 5.4: Scholars perform, present, and/or produce their work within a larger community. Throughout the inquiry process, scholars interact with and benefit from the scholarly community through thoughtful engagement with the opinions and critiques of others.

Assessments

Formative:

- Plagiarism policies and instruction
- Rubric exploration with sample papers

- Presentation peer-reviews
- One-on-one interviews
- Speed-dating
- Refining search skills and creating an annotated bibliography
- Examine ethical research practices
- Teacher-student conferences

Summative:

- PREP entries
- Annotated bibliography
- Elevator speech/poster presentation

Unit 4 (Weeks 14-20): Methods and Conducting Research

Learning Objectives and Essential Knowledge:

EK: 1.1D1, 1.4B1, 1.4B2, 1.4B3, 1.4B4, 1,4B5, 1.4B6, 1.4B7, 1.4B8, 1.4B9, 1.4C1, 1.4C2, 1.4C3, 1.4D1, 1.4D2, 1.4D3, 2.1B1, 2.1B2, 2.1C1, 2.1C2, 2.2A1, 2.2A2, 2.2A3, 2.2B1, 2.2B2, 2.2B3, 2.2B4, 2.2B5, 2.2B6, 2.2C2, 2.2D1, 3.1A1, 3.1A2, 3.1A3, 3.2A1, 3.2A2, 4.4A1, 4.5A1 LO: 1.1D, 1.4B, 1.4C, 1.4D, 2.1B, 2.1C, 2.2A, 2.2B, 2.2C, 2.2D, 3.1A, 3.2A, 4.4A, 4.5A

Enduring Understandings:

- 1.1: Personal interest and intellectual curiosity inspire investigation of topics or issues that may or may not be clearly defined. A well-crafted investigation explores the complexity of an issue or topic. Further inquiry can lead to unexpected conclusions, resolutions, innovations, or solutions.
- 1.4: There are multiple ways to investigate questions, problems, and issues. Methods should be aligned with the purpose of the inquiry.
- 2.1: Authors express their ideas, perspectives, and/or arguments through tier works. The first step in evaluation an author's perspective or argument is to comprehend it. Such comprehension requires reading, viewing, listening, and thinking critically.
- 2.2: Authors choose evidence to shape and support their arguments. Individuals evaluate the line of reasoning and evidence to determine to what extent they believe or accept an argument.
- 3.1: Different perspectives often lead to competing and alternative arguments. The complexity of an issue emerges when people bring these differing, multiple perspectives to the conversation.
- 3.2: Not all arguments are equal; some arguments are more credible/valid than others. Through evaluating others' arguments, one's own argument can be situated within a larger conversation.
- 4.4: Forming one's own perspective and reaching new understandings involve innovative thinking and synthesis of existing knowledge with personally generated evidence.
- 4.5: Arguments, choices, and solutions present intended and unintended opportunities, consequences, and implications.

Assessments

Formative:

- One-on-one interviews
- Rubric exploration with sample papers

- Peer writing groups
- Presentation peer-reviews
- Speed-dating
- Rubric exploration/application with sample videos of oral presentations
- Teacher-student conferences

Summative:

- PREP entries
- Presentations (Lit Review overview, Methods overview)
- Introduction with Literature Review

Unit 5 (Weeks 21-25): Complete Research, Write up Findings, Conduct Peer-review

Learning Objectives and Essential Knowledge:

EK: 2.3A1, 2.3B1, 4.1A1, 4.1A2, 4.1A3, 4.1A4, 4.1A5, 4.1A6, 4.1A7, 4.1A8, 4.1A9, 4.1A10, 4.1A11, 4.1A12, 4.2A1, 4.2A2, 4.2A3, 4.2B1, 5.1A1[R], 5.1A2, 5.1B1, 5.1B2, 5.1B3, 5.1B4, 5.1C1, 5.1C2, 5.13, 5.1D1, 5.1D2, 5.1E1, 5.1E2, 5.1E3, 5.1F1, 5.1F2

LO: 2.3A, 2.3B, 4.1A, 4.2A, 4.2B, 5.1A[R], 5.1B, 5.1C, 5.1D, 5.1E, 5.1F

Enduring Understandings:

- 2.3: Arguments have implications and consequences.
- 4.1: Scholarly works convey perspectives and demonstrate effective reasoning that have been selected for the intended audience, purpose, and situation.
- 4.2: Scholars responsibly and purposefully engage with the evidence to develop a compelling argument or aesthetic rationale.
- 5.1: How a perspective or argument is presented affects how people interpret or react to it. The same perspective or argument may be developed or presented differently depending on audience, purpose, and context.

Assessments

Formative:

- One-on-one interviews
- Presentation peer-reviews
- Peer writing groups
- Speed-dating
- Rubric exploration/application with sample videos of oral presentations
- Mock presentations
- Teacher-student conferences

Summative:

- PREP entries
- Presentations (Results overview, Discussion overview, Conclusion/Future Directions overview)
- Results, Products, or Findings
- Discussion, Analysis, and/or Evaluation
- Conclusions and Future Directions

Unit 6 (Weeks 26-32): AP Research Course Assessment: Academic Paper, Presentation and Oral Defense

Learning Objectives and Essential Knowledge:

EK: 2.3A1, 2.3B1, 4.1A1, 4.1A2, 4.1A3, 4.1A4, 4.1A5, 4.1A6, 4.1A7, 4.1A8, 4.1A9, 4.1A10, 4.1A11, 4.1A12, 4.2A1, 4.2A2, 4.2A3, 4.2B1, 5.1A1[R], 5.1A2, 5.1B1, 5.1B2, 5.1B3, 5.1B4, 5.1C1, 5.1C2, 5.13, 5.1D1, 5.1D2, 5.1E1, 5.1E2, 5.1E3, 5.1F1, 5.1F2

LO: 2.3A, 2.3B, 4.1A, 4.2A, 4.2B, 5.1A[R], 5.1B, 5.1C, 5.1D, 5.1E, 5.1F

Enduring Understandings:

- 2.3: Arguments have implications and consequences.
- 4.1: Scholarly works convey perspectives and demonstrate effective reasoning that have been selected for the intended audience, purpose, and situation.
- 4.2: Scholars responsibly and purposefully engage with the evidence to develop a compelling argument or aesthetic rationale.
- 5.1: How a perspective or argument is presented affects how people interpret or react to it. The same perspective or argument may be developed or presented differently depending on audience, purpose, and context.

Assessments

Formative:

- One-on-one interviews
- Presentation peer-reviews
- Peer writing groups
- Speed-dating
- Rubric exploration/application with sample videos of oral presentations
- Mock presentations
- Teacher-student conferences

Summative:

- PREP entries
- Academic Paper (AP)
- Presentation and Oral Defense (POD)

Unit 7 (Weeks 33-End of Year): Beyond AP Research

Learning Objectives and Essential Knowledge: (All previous skills, with particular focus on):

EK: 5.3A1, 5.3A2, 5.3A3, 5.3A4, 5.3C1, 5.3C2

LO: 5.3A, 5.3C

Enduring Understandings:

5.3: Reflection increases learning, self-awareness, and personal growth through identification and evaluation of personal conclusions and their implications.

Assessments

Formative:

- One-on-one interviews
- Mentor AP Seminar students
- Adjusted AP Research class activityTeacher-student conferences

Summative:

- PREP entries (Portfolio due date TBA, end of May)
- Research posters
- Student proposal for improvements for next year's AP Research class