

Advanced Placement Research

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Course Description

In AP Research students design, plan, and conduct a year-long research based investigation to address a research question. In the course, students further their 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 reflective portfolio (PREP). The course culminates in an academic paper of approximately 4000–5000 words (accompanied by a performance or exhibition of product where applicable) and a presentation with an oral defense.

AP Research continues with the QUEST originating in AP Seminar and extends it:

- **Question and Explore:** Read critically; pose questions; identify issues that you want to explore further.
- **Understand and Analyze:** Re-read, question the text, and consider multiple perspectives to break down an idea or argument into parts that make sense to you.
- **Evaluate Multiple Perspectives:** Identify a variety of perspectives, viewpoints, and/or arguments of an issue, and consider any bias to determine the validity of that point of view.
- **Synthesize Ideas:** Create new perspectives after evaluating other varying perspectives and establishing a unique position or claim using a variety of resources aimed at a specific audience.
- **Team, Transform, and Transmit:** Communicate the message clearly and effectively so as to transform both participants and audience.

Course Materials**

Required Textbook:

Creswell, J. W. (2009). *Research design: Qualitative, quantitative, and mixed methods approaches* (3rd ed.). Thousand Oaks, CA: Sage.

Additional Requirements:

Google Classroom membership

Dropbox account (for PREP and paper drafts)

Notebook, paper, pens, pencils, highlighter, sticky notes

Purdue OWL MLA/APA Guidelines (free online resource)

**Other Course Readings will be provided by the instructor.

Advanced Placement Performance Tasks

Students plan and conduct research using discipline-specific research methods (e.g., qualitative, quantitative, mixed methods) in an area of their interest in order to fill a gap in the current field of knowledge. The final product includes two components:

- **A 4,000 – 5,000 word Academic Paper (75% of score)** that includes the following sections:
 - ◊ Introduction
 - ◊ Method, Process, or Approach
 - ◊ Results, Products, or Findings
 - ◊ Discussion, Analysis, and/or Evaluation
 - ◊ Conclusion and Future Directions
 - ◊ Bibliography
- **A 15-20 minute Presentation and Oral Defense (25% of score)**

Process and Reflection Portfolio (PREP)

While the academic paper, presentation, and oral defense are the products assessed by the College Board, many other documents, products, and tools are used by students to develop their ideas and further their inquiry. To keep track of the inquiry process, students will be required to keep a paper and digital Process and Reflection Portfolio (PREP)—a formative assessment tool that will be shared with their AP Research Teacher. The PREP will allow students to document their experiences in the course and to manage specific checkpoints along the way. In any given week, students should expect to make three or more entries in their PREP to document their engagement with the QUEST ideas. The PREP will be assessed all throughout the year at multiple points.

Policy on Attendance and Assignments

Class attendance is essential in order to take advantage of the time needed to research and write your paper. If you are absent, email the instructor/check Google Classroom/ask a classmate as soon as possible to check for missed work. Students are responsible for all information from every class session. All assignments are due at the beginning of the class period for which they are listed unless otherwise specified. As a general rule, there is no make-up policy for missed assignments unless the student has an excused absence. However, students may turn in late work for examination, but 10% will be deducted for each day beyond the due date that the assignment is late (including weekend days). Some assignments may be turned in electronically as a *Word* file attached to an e-mail.

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.

Ethical Research

Students will receive instruction on ethical research practices during Unit 1 of the course and submit their proposed research, and any accompanying documents, to the CLHS Institutional Review Board.

Course Activities and Objectives

Unit	Instructional/Curriculum Activities	Learning Objectives
1 (8/10-8/31)	Course Introduction <ul style="list-style-type: none"> • Introduction and course overview • PREP Journal • Research methods discussion (from summer reading) • Research timeline/timeline activity • Top 3 research methods • Plagiarism module and test • Ethics/IRB module and test • Rubric breakdown/sample papers 	LO 1.5C, LO 1.5D, LO 2.1B, LO 2.2A, LO 2.2B, LO 2.2C, LO 2.2D, LO 2.3A, LO 2.3B

<p style="text-align: center;">2 (9/1-9/30)</p>	<p>Beginning the Research</p> <ul style="list-style-type: none"> • Research methods (continued) • Abstracting/annotating sources • Topic to Gap (what is missing) • One question—many potential research questions • Finding sources/hierarchy of sources • Expert advisors (email practice and scavenger hunt) • Foundational texts (1-3/10-15) • Purpose of each paper section • Present published research to lay audience • Tentative topic, research question, and method 	<p>LO 1.1C, LO 1.1D, LO 1.1E, LO 1.2A, LO 1.3A, LO 1.4A, LO 1.5B, LO 1.5C, LO 1.5D, LO 2.1B, LO 2.2A, LO 2.2B, LO 2.2C, LO 2.2D, LO 2.3A, LO 2.3B</p>
<p style="text-align: center;">3 (10/1-12/22)</p>	<p>Writing the Literature Review and Beginning the Research</p> <ul style="list-style-type: none"> • Problem statements • Synthesizing texts/bad literature reviews • Tentative research question and method (peer review) • IRB paperwork due • Inquiry proposal overview and practice • Poster draft and elevator speech • Annotated bibliography—first draft • Contact expert advisors • Revised proposal and elevator speech • Writing the proposal • PROPOSAL DUE NOVEMBER 10 • Begin research and writing • Annotated bibliography (12+ sources)—second draft 	<p>LO 1.1C, LO 1.1D, LO 1.1E, LO 1.2A, LO 1.3A, LO 1.4A, LO 1.5B, LO 1.5C, LO 1.5D, LO 2.1B, LO 2.2A, LO 2.2B, LO 2.2C, LO 2.2D, LO 2.3A, LO 2.3B, LO 3.1A, LO 3.2A, LO 4.1A, LO 4.1B, LO 5.1D, LO 5.1E, LO 5.1F</p>
<p style="text-align: center;">4 (1/9-2/28)</p>	<p>Researching, Writing, and Revising</p> <ul style="list-style-type: none"> • Continue researching and writing • PREP Goal Setting/Meetings • INTRODUCTION DUE JANUARY 27 • METHODS SECTION IN PRESENT TENSE DUE FEBRUARY 10 • Continue research and writing • DRAFT OF RESULTS, DISCUSSION, AND CONCLUSION DUE FEBRUARY 28 	<p>LO 1.2A, LO 1.3A, LO 1.4A, LO 1.5B, LO 1.5C, LO 1.5D, LO 2.1B, LO 2.2A, LO 2.2B, LO 2.2C, LO 2.2D, LO 2.3A, LO 2.3B, LO 3.1A, LO 3.2A, LO 4.1A, LO 4.1B, LO 4.2A, LO 4.2B, LO 4.3A, LO 4.4A, LO 4.5A, LO 5.1A[R], LO 5.1B, LO 5.1C, LO 5.1D, LO 5.3A, LO 5.3C, LO 5.4A, LO 5.4B</p>

<p>5 (3/1-4/30)</p>	<p>Finalizing and Presenting the Research</p> <ul style="list-style-type: none"> • Continue writing • FIRST FULL DRAFT DUE ON MARCH 21 • SECOND FULL DRAFT DUE ON MARCH 31 • Finalize papers (peer review) • Upload final paper to the digital portfolio NO LATER THAN APRIL 18 • Oral presentation (practice and review) • Prepare abstracts for panel <p>UPLOAD MUST BE BEFORE ORAL PRESENTATIONS—ORAL PRESENTATIONS APRIL 24-28</p>	<p>LO 4.1A, LO 4.1B, LO 4.2A, LO 4.2B, LO 4.3A, LO 4.4A, LO 4.5A, LO 5.1A[R], LO 5.1B, LO 5.1C, LO 5.1D, LO 5.1E, LO 5.1F, LO 5.3A, LO 5.3C, LO 5.4A, LO 5.4B</p>
<p>May 2017</p>	<p>FINAL PREP DUE RESEARCH CONFERENCE VISIT CLASSROOMS TO PRESENT RESEARCH TALK WITH SEMINAR STUDENTS MANUAL FOR NEXT YEAR’S STUDENTS</p>	

Unit 1 (Weeks 1-2): Course Foundations

In this unit the student (1) is introduced to the course goals and task descriptions for AP Research, (2) is shown how the QUEST framework applies to this course, (3) enrolls in and completes plagiarism and ethics modules, and (3) revisits research methods. Activities and assignments include

Understanding Research Terms

Ethical Research and Human Subjects Protection Course and Test

<https://phrp.nihtraining.com/index.php> (refer also to Lesson 12 in 2016 AP Research Student Workbook and Dr. Scherff’s examples of approved university IRBs)

Plagiarism Module <https://www.indiana.edu/~academy/firstPrinciples/index.html>

Connecting the Course Assessment to QUEST

Introduction to the Process and Reflection Portfolio (PREP)

Research Methods Overview/Review: Creswell (2009), 2016 AP Research Student Workbook (page 17)

AP Research Rubric Overview and Paper Jigsaw (practice scoring papers and presentations, Lessons 15 & 16 in the 2016 AP Research Student Workbook)

Analyzing Parts of an Academic Article: Their Purposes and Functions (Powell, 2013—narrative inquiry; Curwood, Magnifico, & Lammers, 2013—Internet ethnography; Scherff, 2012—thematic analysis; Hooper & Burnham, 2008—quantitative). Also complete Lesson 5 in the 2016 AP Research Student Workbook.

Unit 2 (Weeks 3-6): Beginning the Research Process

In this unit the student (1) examines further various research methods resources, (2) identifies potential texts and sources for individual topics of interest, (3) begins to narrow the search for an area of inquiry and research question, and (4) identifies the type of expert advisor best suited to the selected field of study and research question. Activities and assignments include

The Role of the Teacher and the Role of the Expert Advisor: Students read about the roles of expert advisors and their participation as a panel member of the presentation and oral defense assessment; students take part in role play and scenario discussion. Students must record minutes of all meetings/correspondence and reflect on findings, insights, and conclusions in the PREP.

Expert Advisor Scavenger Hunt: Students engage in “hunt” for potential expert advisors using key terms and university/business/government websites.

Factors that Influence the Research Design: Time, Cost, Access, and “Doability”

From RAVEN to PAARC: The Credibility Test (Lesson 5 from 2015 AP Research Student Workbook). Students view the CNN interview with Jenny McCarthy about vaccines and autism and evaluate McCarthy’s credibility according to the PAARC Test. Students then read Jeffrey Gerber and Paul Otis’s article, “Vaccines and Autism: A Tale of Shifting Hypotheses,” and evaluate its credibility according to the PAARC Test.

Citation Styles Appropriate for Discipline: Lesson 4 in 2016 AP Research Student Workbook and power points from online community

Methods Appropriate for Research Question: Students will be given different research questions from published articles and determine the appropriate method(s) for answering them

Abstracting/Annotating: Practice annotated bibliography, referencing the template found in the 2016 AP Research Student Workbook (They Say, I Say templates) or the method described in Creswell (2009). (Refer to Lesson 4 in the 2016 AP Research Student Workbook)

Finding the Gap: Group Work Based on Broad Topics

Finding Sources and Data Mining (using references sections of articles, chapters, and books)

Choosing a Research Approach to Find the Gap: View and discuss the 2016 AP Research Student Workbook PPT slides to examine the differences in research approaches.

Choosing a Research Design: Discuss the 2016 AP Research Student Workbook PPT slides to examine differences in research type; refer also to chapters in Creswell (2009) on qualitative, quantitative, and mixed-methods research

Choosing Data to Collect: Research Question Drives Method and Data Collection!

Research Alignment: Lesson 9 (2016 AP Research Student Workbook)

Defending Your Chosen Research Approach, Design, and Method: Lesson 10 (2016 AP Research Student Workbook)

Arts-based Research (if students go that route)

Analyzing Research Questions: Students analyze effectively and ineffectively written research questions.

Launch the Initial Research of Potential Topic: After selecting an area of inquiry, students consider the appropriate discipline and citation style, find the gap, situate the problem statement and subsequent research question within the gap using primary/secondary sources: three to five foundational texts and 15 to 20 peer-reviewed articles/sources. Once a topic is set, students work to choose a distinct research approach, design, and method of data collection. To locate sources, students will use the school library and online libraries (public, local college and university) to secure significant books. Students will locate peer-review articles through EBSCOhost, JSTOR, Gale Group, Researchgate, Google Scholar, and Academia.edu; find reputable newspaper and professional journal articles and credible websites online.

Students consider what type of expert advisor best fits the area of inquiry, secure an expert advisor, engage in preliminary meetings with the expert advisor, and once secured, extend the necessary letter of invitation that also provides the expert advisor with information about his/her expectations.

PREP (entries made bi-weekly from this point forward): Reflect on the research process so far, noting the successes and challenges and solutions to those challenges (change of topic, revision of research question, etc.) as well as how the research contributes to the scholarly community.

Unit 3 (Weeks 11–16): Literature Review/Conducting the Research

In this unit the student (1) begins the literature review through an annotated bibliography, (2) contacts potential expert advisor(s), (3) decides on a research question and method, (4) submits a draft of the proposal form, and (5) completes an “elevator speech” with poster. Activities and assignments include

Begin Creating an Annotated Bibliography: Record it in the PREP. 1) Students identify and read one to five sources to begin to develop an annotated bibliography. Within the annotated bibliography, students will cite the bibliographic details, briefly summarize the source, and comment on its credibility and usefulness to their inquiry, 2) Synthesize 2-4 sources that expose the gap. Students review scholarly articles and focus on how authors identify an area of inquiry, lay the foundation for their studies, and align their research methods. This review process will lead to development of an annotated bibliography of the articles and culminate in an elevator pitch or poster presentation where the student gives a short, oral report on their line of inquiry in relation to the articles they reviewed.

Inquiry Proposal Creating a Preliminary One-slide PowerPoint Presentation of Research Proposal

In a videotaped elevator pitch, students present their preliminary research proposals for peer review and teacher assessment (Lesson 7 in 2016 AP Research Student Workbook; Lessons 12 and 13 in 2016 AP Research Student Workbook).

IRB Paperwork (refer to Lesson 12 in 2016 Student Workbook)

Refining Your Research to Meet the Criteria of the Formal Inquiry Proposal: 1) Students will develop their methods in scheduled consultations with the AP Research teacher and expert advisor(s) to ensure alignment between the question type and research method. Students will also revisit ethics requirements to ensure that proper guidelines are followed in this process. 2) Students continue Locating Sources for their annotated bibliography and literature review (three to five foundational texts, 15 to 20 peer-reviewed articles, and other credible sources).

Submitting the Formal Inquiry Proposal Form: 1) Offer inquiry proposal for peer review and revise as needed; 2) Submit Inquiry Proposal Form to teacher for assessment and for possible revision, and revise as needed; 3) Submit final Inquiry Proposal Form to the teacher for final approval of your research topic, research question, and research approach, design, and method of collecting data (final form due by November 10).

Synthesizing Texts for the Literature Review: Lesson 14 in 2016 AP Research Student Workbook (see also Creswell book and power points). Students will also be assigned a collection of primary text documents to read and analyze, and asked to identify a theme connecting the texts and the multiple perspectives that are identifiable within that theme.

Writing the Literature Review: Students will perform an in-depth literature review that lists the scholarly source materials used and describes information and perspectives these materials offer relating to their research question. Students will demonstrate the literature review's comprehensiveness in breadth, relevance, currency, availability, and authority within chosen resources, using the discipline-specific style common to the field of study. There must be at least 12-20 sources.

Assessing the Literature Review (due mid-December): The teacher will assess the literature review for effort and completion.

Unit 4 (Weeks 17–30): Writing the Academic Paper

In this unit the student (1) is conducting research, (2) revisiting and revising the literature review, (3) is conferring with the teacher on a regular basis, (4) conferring with the advisor (if applicable), and (5) may begin data analysis. Activities and assignments include

About Writing the Academic Paper: Students review the task description for the academic paper and practice Scoring Sample Academic Papers (Refer to 2016 AP Research Student Workbook); record findings in PREP

Writing the Rough Draft of the Academic Paper: Submit drafts of the complete paper twice for peer review (see calendar for due dates)

Peer Review: Students work in small groups to read and respond to each other's papers (using the rubric).

Offering the Rough Draft of the Academic Paper to the Expert Advisor (if applicable)

Unit 5 (Week 25–May 31): Finalizing the Research

In this unit the student (1) revises the academic paper (2) practices the presentation and oral defense, (3) participates in peer review sessions, (4) confers with the advisor (if applicable), (5) submits the final paper to turnitin.com and the digital portfolio, (6) orally defends the research, (7) and turns in the PREP journal. Activities and assignments include

Review of Presentations: Refer back to Lessons in 2016 AP Research Student Workbook

Submitting the Rough Draft of the Academic Paper to Turnitin.com: Students will submit the rough draft of the academic paper to Turnitin.com to check for incidental (or blatant) plagiarism and revise the paper as needed.

Final Draft of the Academic Paper for Peer Review

Submitting the Final Draft to the College Board Digital Portfolio: Students must upload their final paper before the oral presentations and defense occur (see calendar for last possible submission date).

Oral Defense Review: Students examine the following three types of oral defense questions that they will prepare to answer in front of panel members: Research inquiry process/method (expert advisor's question); Depth of research; and, Reflection (from PREP)

Designing, Planning, and Practicing the Presentation: After designing the multimedia format, students prepare a script outline and practice delivering the speech live and offer the practice recording to peer review.

Oral Defense Practice: In groups, students practice answering samples of all three types of oral defense questions.

Presentations and Oral Defense: The multimedia presentations and oral defenses occur April 24–28, 2017.

Final PREP Submission (after April 30, 2017): 1) Students will use their PREP to reflect on the research process and the larger context of their scholarship. This reflection will be based on instructor prompts, questions, and activities. Among other things, students will be expected to consider how their research contributes to the larger research community and the implications of their research for their own development as scholars; 2) Following submission of the academic paper, presentation, and defense, students construct a brief research proposal for an extension of their work, addressing questions answered, new questions raised, and the significance of these.

Please read the syllabus and the checklist prior to signing at the bottom.

Please sign, check, and return this page of the syllabus to me NO LATER than the Friday, August 19th.

Parents/Guardians and Students,

Course Agreement

Parent/Guardian Signature Checklist: Parents/Guardians, please check each box and sign below.

- I understand that my student is completing a college-level course.
- I understand that there are assessments mandated by College Board that my student must complete.
- I understand that my student will have homework and/or an assessment every week of the school year.
- I understand that I must check-in with my student to ensure their success.
- I understand that I must contact the teacher if I wish to initiate questioning about my student's performance.
- I understand that my student must adhere to the policies outlined in this syllabus.

Parent Signature: _____ Date: _____

Email Address:

Student Signature Checklist: Students, please check each box and sign below.

- I understand that I am completing a college-level course and that I may struggle.
- I understand that there are assessments mandated by College Board that I must complete.
- I understand that I must remain aware of my grade in this class.
- I understand that I will have homework and/or assessments every week of the school year.
- I understand that grades are earned in this class.
- I understand that I must ask my teacher for help.
- I understand that I must adhere to the policies outlined in this syllabus.

Student Signature: _____ Date: _____

Email Address:
