

AP RESEARCH SYLLABUS

School Year 2023-24

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I. WHAT IS AP RESEARCH? (From the 2021 AP Research Course and Exam Description, p. 10)

(Note: The AP Seminar course is a prerequisite for AP Research. Completing AP Seminar and all its required assessment components is necessary for students to develop the skills to be successful in AP Research.)

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 AP Seminar by learning research methodology, employing ethical research practices, and accessing, analyzing, and synthesizing information. Students reflect on skill development, document their processes, and curate the artifacts of their scholarly work through a process / 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

II. AP CAPSTONE™ POLICY ON PLAGIARISM AND FALSIFICATION OR FABRICATION OF INFORMATION

(From the 2021 AP Research Course and Exam Description, p. 43)

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.

III. RESEARCH ETHICS (From the 2021 AP Research Course and Exam Description, p. 44)

All research proposals will be reviewed by the classroom teacher for ethical considerations prior to data collection. Multiple student revisions may be required before teacher approval is granted. In particular, research with human subjects, animal subjects, harmful microorganisms, or hazardous materials requires special consideration by the teacher. Research involving human subjects must be evaluated for:

- a. potential harm to subjects that may result from their participation;
- b. potential benefits of the research for the subject and the community as a whole;
- c. procedures used to ensure the informed and voluntary participation of research subjects;
- d. procedures used to ensure the confidentiality of research subjects.

Accordingly, the teacher must review any surveys, interview questions, questionnaires, or other interventions to be used in a project, as well as student plans for protecting animal and human subjects' well-being and human subjects' anonymity and/or confidentiality. Proposals that pose more than minimal risk to participants cannot be approved. If students do not plan to present their findings on human subject research in a competition setting, and/or disseminate their findings by publishing or publicly presenting their findings, teacher approval is sufficient. However, there are two general circumstances in which additional review is necessary:

1. Students whose projects involve animal subjects, harmful microorganisms, or hazardous materials may require additional review or approval by school or district processes.
2. Students who want to publish and/or publicly present their findings regarding human subjects research will require an additional review and approval process by a federally registered Institutional Review Board (IRB).

IV. CURRICULAR REQUIREMENTS (CR) (From the 2021 AP Research Course and Exam Description, pp. 12-32)

Curricular requirements are designed to assist the teacher in planning the course. These requirements detail the skills students need to complete the course successfully. These requirements appear throughout the syllabus as markers that indicate which units and tasks are designed to satisfy the requirements.

CR1a	Students develop and apply discrete skills identified in the learning objectives within the Big Idea 1: <i>Question and Explore</i> .
CR1b	Students develop and apply discrete skills identified in the learning objectives within the Big Idea 2: Understand and Analyze.
CR1c	Students develop and apply discrete skills identified in the learning objectives within the Big Idea 3: <i>Evaluate Multiple Perspectives</i> .
CR1d	Students develop and apply discrete skills identified in the learning objectives within the Big Idea 4: Synthesize Ideas.
CR1e	Students develop and apply collaboration skills identified in the learning objectives within the Big Idea 5: Team, Transform, and Transmit.
CR1f	Students develop and apply reflection skills identified in the learning objectives within the Big Idea 5: Team, Transform, and Transmit.
CR1g	Students develop and apply written and oral communication skills identified in the learning objectives within the Big Idea 5: Team, Transform, and Transmit.
CR2a	Students develop an understanding of ethical research practices.
CR2b	Students develop an understanding of the AP Capstone™ Policy on Plagiarism and Falsification or Fabrication of Information.
CR3	<p>In the classroom and independently (while possibly consulting any expert advisors), students learn and employ research and inquiry methods to develop, manage, and conduct an in-depth investigation of an area of personal interest, culminating in an academic paper of 4,000-5,000 words that includes the following elements:</p> <ul style="list-style-type: none">• Introduction• Method, Process, or Approach• Results, Product, or Findings• Discussion, Analysis, and/or Evaluation• Conclusion and Future Directions

- Bibliography

- CR4a** Students document their inquiry processes, communicate with their teachers and any expert advisors, and reflect on their thought processes.
- CR4b** Students have regular work-in-progress interviews with their teachers to review their progress and to receive feedback on their scholarly work as evidenced by the PREP.
- CR5** Students develop and deliver a presentation (using an appropriate medium) and an oral defense to a panel on their research processes, method, and findings.

V. MAJOR ASSESSMENTS (Detailed samples and rubrics will be distributed when assessments are discussed in class.)

- Self-Reflection Topic Essay: First Quarter Project grade **Due:** Wednesday, 4 October
- Annotated Bibliography: Second Quarter Project grade **Due:** Thursday, 23 November
- Literature Review Draft: Third Quarter (non-terminal) **Due:** Wednesday, 13 December
- Academic Paper Abstract: Third Quarter Project grade **Due:** Thursday, 7 March
- Presentation and Oral Defense¹: Fourth Quarter Project grade **Due:** Friday, 26 April³

¹ - The Presentation and Oral Defense (POD) constitutes 25% of the final AP Research score. It is scored by the teacher.

- Academic Paper, Final Draft²: Submitted via AP Digital Portfolio **Due:** Wednesday, 1 May³

² - The Academic Paper constitutes 75% of the final AP Research score. It is scored by the AP College Board readers.

³ - Students will not be notified of their raw scores on the POD or the Academic Paper. They will be notified only of their qualifying/non-qualifying scores of 1 thru 5. The AP Research teacher **cannot** divulge raw scores, at any time.

VI. MINOR ASSESSMENTS

Each week, various tasks and assessments will be assigned or administered. These will vary in nature depending on the type of task required to fulfill curricular requirement and develop skills adequately. All assignments, tasks, and assessments will be introduced during relevant class periods and discussed thoroughly so students will always embark on a task, assignment, or assessment with maximum clarity and comprehension regarding requirements for successful completion. (See **PREP FOLDERS** description on **p. 4** of this document.)

VII. PREP FOLDERS (From the 2020 AP Research Course and Exam Description, pp. 45-46)

The purpose of the process and reflection portfolio (PREP) is to inspire, support, and document the students' development throughout their research process. This portfolio will be reviewed throughout the year as a formative assessment component of the course and will be maintained by the student as evidence of participating in research to show to academic counselors, college admission officers, and faculty members.

Throughout the inquiry process, students will document their research and/or artistic processes and communications with their expert advisers, pose questions they want to explore, and reflect on the decisions made throughout the iterative research process. Students should also examine their strengths and weaknesses with regard to implementing such processes and developing their arguments or aesthetic rationales.

The teacher will pose questions and tasks to help guide students through the inquiry process. These questions help students in the early months of the academic year as they begin the inquiry process and throughout the year as they examine, and reexamine, their chosen areas of study and the process by which they engage in research. The combined group of questions and tasks in the PREP document will address all five big ideas in the curriculum framework (QUEST), with specific attention paid to the following:

- Choice of the research question and interest in the subject matter

- Directions in which the inquiry or project seemed to lead and changes to initial topic, question, assumptions, and research method
- Research method, including resources used (documents, people, multimedia, measurement instruments etc.)
- Compilation and analysis of evidence
- Ways in which students work both on their own and as part of a larger scholarly community
- Challenges and solutions encountered throughout the research process

The teacher will regularly engage students in individual discussions or interviews to help them reflect on and document their work, organize their time, and reach appropriate milestones. The teacher will also use these discussions formatively as opportunities to assess students' progress. The PREP folder will be used to inform regular progress reviews throughout the year. Teacher and student preference can determine the format of the portfolio (electronic or hard copy).

In addition to responses to questions and tasks provided by teachers, the final form of the PREP will have a clear organizational structure and include:

- Annotated bibliography of any source important to the student's work
- A completed and approved Inquiry Proposal Form
- Documentation of permission(s) and approval(s), if required — for example, permission(s) from an IRB or other agreements with individuals, institutions, or organizations that provide primary and private data such as interviews, surveys, or investigations
- Documentation or log of the student's interaction with expert adviser(s) and the role the expert adviser(s) played in the student's learning and inquiry process
- Feedback from peer and adult reviewers both in the initial stages and at key points in the research process; reflection on whether or not feedback was accepted or rejected and why
- Photographs, charts, spreadsheets, links to videos or other relevant visual project artifacts
- Draft versions of selected sections of the academic paper
- Specific pieces of work selected by the student to represent what they consider to be the best showcase for their work
- Notes taken in preparation for presentation and oral defense
- Attestation signed by the student which states, "I hereby affirm that the work contained in this Process and Reflection Portfolio is my own and that I have read and understand the AP Capstone™ Policy on Plagiarism and Falsification or Fabrication of Information"

VIII. COURSE REFERENCE MATERIALS (Available in the AP Research classroom)

- Booth, Wayne C. et al. *The Craft of Research*. 3rd ed. Chicago: The University of Chicago Press, 2008.
- Christensen, Larry B. et al. *Research Methods: Design and Analysis*. 12th ed. Boston: Pearson, 2014.
- Graff, Gerald, and Cathy Birkenstein. *They Say, I Say: The Moves that Matter in Academic Writing*. 2nd ed. New York: W.W. Norton & Co., 2010.
- Leedy, Paul D., and Jeanne Ellis Ormrod. *Practical Research: Planning and Design*, 10th ed. Boston: Pearson, 2013. Print.
- Palmquist, Mike. *The Bedford Researcher: An Integrated Text*, CD-ROM, and Web site. Boston: Bedford/St. Martin's, 2003.
- Turabian, Kate L., and Gregory G. Colomb. *Student's Guide to Writing College Papers*. 4th ed. Chicago: The University of Chicago Press, 2010.
- *AP Research Course and Exam Description*. College Board, 2020.
- Various academic papers (philosophical texts, writing guides, peer-reviewed articles) for specific lessons. Some student research will be directed to/accomplished in EBSCOhost.

IV. COURSE PROGRESSION

QUARTER 1

Course Requirements / Topic Inquiry / Collecting Sources

(Weeks 1–9)

After a review of AP Research rubrics and this syllabus – with special attention on deadlines – students will read, analyze, and discuss sample research papers to gain an idea of the productivity required in this course, to include (but not limited to): application of research principles learned in the AP Seminar course (to include a review of the 5 Big Ideas/QUEST Framework); analysis of previous papers for purposes of identifying/applying the rubric criteria, particularly the inclusion of and discussion of multiple perspectives; identification of 'problem areas' or 'gaps' in previous research; beginner-level awareness and/or understanding of research methodology as described in sample papers; analysis of the research student's ability to synthesize ideas and/or multiple perspectives discovered in the research. From course familiarization and the beginning study of previous papers we will proceed to topic inquiry, aware of how AP Capstone course are designed and conducted:

We will **question** and **explore** personal and academic interests of each scholar, using interest surveys and questionnaires that stimulate reflection and projection;

We will collect preliminary sources based on preliminary areas of interests, and present to the class what we **understand** and **analyze** from each source, regarding our preliminary topics of interest;

We will present a preliminary **evaluation of multiple perspectives** found in our preliminary sources;

We will **synthesize** and present **ideas** from a small collection or preliminary sources, to help ourselves determine if a preliminary topic seems right for a long-haul research project;

We will **transform and transmit** these preliminary findings in presentations that demonstrate our beginning inquiry into a discovering an individual research topic for the year:

During oral presentations, students will demonstrate their reflection on the preliminary research process, providing a written account (via slide deck) of their process and what it has yielded in the preliminary stages.

The above listed activities begin the process of documenting the inquiry process, and documents will be collected and maintained in PREP folders.

Materials Provided by the Teacher

- QUEST framework graphics
- AP Research Final Paper Rubric
- Sample research papers submitted by previous AP Research scholars
- Topic Inquiry questionnaires, surveys, etc.
- Annotated Bibliography format
- PREP folder samples

Quarter 1 Classroom Activities

- Reading and analysis of sample papers
- Presentation of findings in sample papers
- Application of AP Research Rubric to sample papers
- Topic Inquiry Surveys
- Preliminary Source Collection and Analysis
- Presentation of Findings in Analysis of Preliminary Sources
- After preliminary topic inquiry, define/discuss/identify/present 'gaps in research' and relate the concept to the sample papers we have used
- Identify unfamiliar items on the AP Research Rubric before finding and reading source materials that help the scholar identify and explain the unfamiliar concepts within.
- Introduce the Annotate Bibliography format that will be completed as the Quarter 1 final project for grade book submission
- Introduce Process and Reflection Portfolios (PREP)

- Students will receive sample PREP folders and instructions on keeping and maintaining their own.
- PREP folder formats will be discussed and chosen by the students.
- All Quarter 1 topic inquiry activity materials will be placed in PREP folders as beginning entries to initiate the documentation process of all research activities, decisions, products, etc.
- Regular practice of presentation skills, rhetorical skills, and argumentation in front of peers.

Assessments

- Reading/Analyzing/Discussing sample papers: Students will discover and disclose various elements of the QUEST process in other people's research.
- Applying rubric to sample papers.
- Completion of Topic Inquiry questionnaires, narrative-based
- Collection of preliminary resources
- Presentation of findings in preliminary resources
- First WIP meetings with teacher, regarding preliminary source collection and topic interest evolution
- Elevator pitch with slide deck: Students will prepare a 5-minute explanation of their intended research topic (with research question if applicable) and present it to the class using a slide deck.
- Annotated Bibliography (Major Assessment/Quarter Project)

QUARTER 2

Methodology / Research Proposal / Literature Review

(Weeks 10–19)

Specific research methods are introduced and discussed as students narrow their research topic to form a question and begin the collection of sources. The role and purpose of expert advisors will be discussed. Deadlines will be reviewed, and by the end of the quarter the formal Proposal will be submitted (23 November) and at least a partial draft of the Literature Review will be submitted (14 December). This is the beginning of week-long work sessions when students are expected to manage time efficiently and rely on the teacher for very little by way of instruction or involvement in the research process. Before we break for Christmas there will be a review of the final requirements: the paper and the presentation/oral defense, so students are aware of their goals when they return on 5 Jan.

Materials Provided by the Teacher

- 'Narrow Your Topic' exercises
- Digital methodology folders (distributed via Google Classroom)
- "What Kind of Researcher Am I?" questionnaire
- Research/Inquiry Proposal form
- Assessment rubrics for this quarter's work
- Quarter 3 calendar (distributed at Christmas, as a reminder that senioritis will not be an excuse!)

Quarter 2 Classroom Activities

- Discussion of a research/literature "gap"; review of gaps found in earlier sample papers
- Exercises to help narrow research question, to include peer review sessions for critique and evaluation of research question formation
- Using generic or pre-formulated sample questions, students will determine what type of approach, design, or method would yield the best results for such a research project.
- Introduction of methods and reading sample papers, exemplars.
- Student teams choose a method and explain it to the class, including the analysis of a close reading of at least two portions of one chosen paper.
- Group WIP sessions: Pairs provide one another with work-in-progress information, and the partner presents the other's WIP to the class.
- Introduction/discussion of the Inquiry Proposal form; review deadlines; focus on defining/understanding the terms "scope, sequence, and feasibility"
- Review of Literature Reviews from earlier sample papers; discussion; review of deadlines
- Review of ethical research principles
- Review sample inquiry proposals

- Peer review of updated Annotated Bibliographies
- Students will receive, complete, evaluate, and eventually submit their final Inquiry Proposal Forms
- Prior to final submission of the Inquiry Proposal Form, students will peer review each other's proposals, and submit their form for a preliminary review by the instructor (with feedback to be provided).

Assessments

- PREP folder submissions and inspections
 - PREP folders this quarter will include mini-essays (300-400 words) on the following:
 - Plagiarism and the scholar's honor
 - Research ethics and the scholar's responsibility
 - "Why This Research Method Works for My Paper"
 - "What Have I Learned So Far?"
- Annotated bibliography updates
- WIP reports, individual and group formats
- Final Inquiry Proposal Form sheet is due (23 November). Teacher will approve/not approve.
- Beginning draft of Literature Review (14 December) to be peer reviewed and critiqued

QUARTER 3

Course Review / Work Sessions

(Weeks 20–29)

Quarter 3 begins the final countdown to paper submission and oral defense on 2 May. Students will submit proof of regular meetings with expert advisors, continue to submit PREP folder updates and participate in less frequent WIP sessions. Research will continue, with attention paid to methods and alignment, and resource selection will become critical to the writing of the paper, which will begin after return from the Chinese New Year break.

Materials Provided by the Teacher

None prescribed. Teacher will amend as need arises throughout Quarter 3.

Quarter 3 Classroom Activities

- Work sessions, focusing on methodology and source collection, and eventually paper composition
- Expert advisory meetings, with progress records maintained and included in the PREP folder
(*Likely to be conducted online or outside campus, with parental permission submitted to teacher.*)
- Review of final paper rubric
- Review of presentation and oral defense rubric
- Review of plagiarism policy
- Review of research ethics

Assessments

- PREP (see above)
- WIP reports, with emphasis on role of the expert and usefulness of expert content in each student's progress
- Peer reviews: Students will collaborate with each other on the early drafts of their work.
- Short Research Reflection Essay (500-700 words)
 - This will be the major grade book entry for the quarter.

QUARTER 4

Final Products

(Weeks 30–36)

No major classroom activities are planned for this quarter. Students will be working on paper submissions and the design, composition, and rehearsal of their oral defenses (26-28 April).

Materials Provided by the Teacher

None prescribed. Teacher will amend as need arises throughout Quarter 4.

Quarter 4 Classroom Activities

- Work sessions
- Oral defense rehearsals
- Peer critiques of oral defense rehearsals
- Presentations and oral defense (23-26 April)
- Papers submitted by Monday, 1 May
- Post-submission party (!)
 - Price of Admission: Film a reflection skit for next year's AP Research students
 - Students will script, rehearse, and film the skit after 1 May.

Course Ends on third Wednesday of May.