



# CHELMSFORD HIGH SCHOOL

## AP Research SYLLABUS 2023-2024

### **COURSE DESCRIPTION**

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 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. Although the topic of each research study will vary, the course requires students to plan and conduct a study or investigation. 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 of 4000–5000 words (accompanied by a performance or exhibition of product, where applicable) and a presentation with an oral defense.

Students who successfully earn a 3 or higher in both AP Seminar and Research and 4 other AP courses will earn the AP Capstone Diploma. This accomplishment signifies their outstanding academic achievement and attainment of college-level academic and research skills.

### **Program of Studies**

*Prerequisite(s): AP Seminar*

### **REQUIRED TEXTS**

Palmquist, Mike. *The Bedford Researcher*. Bedford/St. Martins, 2018

Dawson, Catherine. *100 Activities for Teaching Research Methods*. SAGE Publications, Ltd., 2016

### **COURSE GOALS and STUDENT LEARNING OUTCOMES:**

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.

The AP Research Grade from the College Board consists of 2 scores - 75% from your Academic paper and 25% from your POD.

### **Course Objectives**

The foundation of the course is built upon the following **5 Big Ideas** and associated with Essential Questions

- **Big Idea #1 = Question & Explore:** Challenge and expand the boundaries of your current knowledge
- **Big Idea #2 = Understand & Analyze:** Contextualize arguments and comprehend authors' claims
- **Big Idea #3 = Evaluate Multiple Perspectives:** Consider individual perspectives and the larger conversations of varied points of view
- **Big Idea #4 = Synthesize Ideas:** Combine knowledge, ideas, and your own perspective into an argument
- **Big Idea #5 = Team, Transform & Transmit:** Collaborate, reflect, and communicate your argument in a method suited to your audience

**The course learning objectives culminate in allowing students to understand and develop the following processes (page 7, Course and Exam Description Book)**

- **Situating:** being aware of the context of one's own as well as others' perspectives, realizing that individual bias can lead to assumptions
- **Choosing:** making intentional and purposeful choices, realizing that choices have both intended and unintended consequences
- **Defending:** being able to explain and justify personal choices, logic, line of reasoning, and conclusions
- **Connecting:** seeing intersections within and/or across concepts, disciplines, and cultures  
(Taken from The College Board, *AP Research Course and Exam Description*)

### **COURSE STANDARDS**

[College Board AP Research Course and Exam Description](#)

### **PERSONS WITH DISABILITIES**

Chelmsford High School is committed to supporting the success and well-being of all students, regardless of varying abilities and levels of adaptive skills. The Special Education office provides services and resources to empower each student to attain their highest level of academic success and learning independence.

### **ACADEMIC INTEGRITY**

At Chelmsford High School, students are expected to maintain high moral and ethical standards, as exemplified by the final sentence of our mission statement: "*A spirit of respect is fostered, as members take responsibility for their actions and acknowledge the rights and differences of others.*" (CHS Mission Statement)

Students should respect themselves, other students, staff members and the school. The acts of cheating and plagiarism violate expectations that students will exhibit respectful, ethical behavior.

[The Academic Honor Code](#) exists to address the issues of cheating and plagiarism.

### **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.

(Taken from The College Board, *AP Research Course and Exam Description* pg. 43)

### **GRADING POLICIES**

Please connect with individual teachers for specific information regarding grading. Students will be able to monitor academic progress biweekly through X2/ASPEN.

Students are strongly encouraged to take advantage of the academic support programs and services (such as PRIDE Block, after-school help, etc.) available to them to help ensure and support success.

### **Course Grade**

Aside from the grade you receive from the College Board you will earn a grade for your work in the overall course. **Many of the assignments will be completion based, which is why timeliness is essential.** You will also be graded in a variety of formative and summative methods including but not limited to: reflections and PREP journal work, peer review, participation and other small projects. Grades will be tallied as total points and recorded in X2. Please check both Google Classroom and X2 often and keep track of your grades and assignments.

## **Class Assessments**

**Formative** - Classwork will typically be focused on developing skills to aid in the development of the academic paper and presentation. These assignments may include elevator pitches, class assignment completion, peer reviews, poster presentations, socratic seminars and class participation.

**Summative** - Items included in the PREP will be graded as summative assignments. Students will complete an annotated bibliography that shows an alignment of sources to the research topic and an inquiry proposal that clearly identifies the topic of study, research question, preliminary research, and the relevant methodological and ethical considerations.

## **AP Research Assessment Overview**

Students are assessed with one through-course performance task consisting of two distinct components. Both components will be included in the calculation of students' final AP scores.

- Academic Paper -- 75%
- Presentation and Oral Defense -- 25%

## **Academic Paper (page 9, Course and Exam Description Book)**

In the classroom and independently 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:

- **Introduction/Literature Review**
- **Method, Process, or Approach**
- **Results, Product, or Findings**
- **Discussion, Analysis, and/or Evaluation**
- **Conclusions and Future Directions**
- **Bibliography**

## **AP Research Through-Course Performance Task**

- Weight: 100% of the AP Research Score
- Recommended Completion Date for Both Components: April 15th

## **Presentation and Oral Defense**

In addition to the academic paper, students will make a 15-20 presentation to a panel of 3-4 evaluators. The panel will include the AP Research teacher (me), faculty and staff members and potentially members of the community. The purpose of the presentation is for students to defend their topic and research. Additionally, students will be asked one question from each of the following categories: research or inquiry process, depth of understanding and reflection.

## **Preparing the Process and Reflection Portfolio (PREP) (page 45 Course and Exam Description)**

In addition to the academic paper and oral defense, students must complete and keep track of the PREP journal. The purpose of the PREP journal is for the student to document the process, development, experiences and growth throughout the course of the year. Students will continually use the PREP to chart their engagement with the QUEST big ideas, and with special attention paid to:

- Choice of research question and what prompted their interest in the topic
- Research process, including important sources
- Analysis of evidence as it becomes available
- Changes in direction or to initial assumptions
- Ways the students have worked both on their own and as part of a larger community
- Challenges encountered as well as relevant solutions attempted

Your PREP journal may be completed either electronically or in hard copy. In addition to responses to questions and tasks provided, the final PREP journal should include:

- Table of Contents
- Completed and approved Inquiry Proposal Form (due November 15th)
- Specific pieces of work to showcase your best work throughout the process
- Resource List
- Annotated Bibliography
- Any relevant visuals
- Draft versions of academic paper
- Notes in preparation for Oral Defense

### **IRB and Research Ethics**

Research proposals involving human subjects must be reviewed and approved by an institutional review board (IRB) before experimentation begins. Before any students conduct research using observations, focus groups or surveys and/or questionnaires, they must submit their proposal for approval to the IRB to ensure the ethical standards of their intended research. This federal regulation is to evaluate any potential risks involving humans. The IRB can be a lengthy process. Be sure to plan accordingly so you have enough time to conduct your research in an ethical manner.

### **COURSE SKILLS**

(Page 9, Course and Exam Description)

The AP Capstone reasoning processes are also embedded in the AP Research course transferable skills and proficiencies. The transferable skills and proficiencies are high-level descriptions of the understanding, knowledge, and skills that students should be able to apply in novel situations long after completing the AP Research course.

- Establish an Argument
- Select and Use Evidence
- Design a Research Focused Project
- Understand and Analyze an Argument
- Understand and Analyze Context
- Evaluate Sources and Evidence
- Engage an Audience
- Apply Appropriate Citation Style

- Reflect upon the Challenges, Successes, and Moments of Insight

## **COURSE OUTLINE**

### **Curriculum Unit Overview and General Timeline:**

#### **1. Unit 1: Developing Research Essentials (End of August to Mid- September)**

- a. The purpose of this unit is to bridge the gap from AP Seminar to AP Research.
- b. Many of the same concepts and ideas from AP Seminar will be reinforced and we will also examine how AP Research will take a different path.
- c. We will lay the foundation of expectations of the research project including (but not limited to): research topics and questions, the writing process, comparing and contrasting rubrics, and exemplar papers.
- d. We will also be reviewing important writing and research skills.
- e. The goal of the unit is to narrow and find a topic of focus for the project. We will reflect upon our work by starting and using PREP journal entries.
- f. The primary focus will be on Big Ideas 1, 2, 4 and 5

#### **2. Unit 2: Collecting Sources and Literature Review (End of September to Mid-October)**

- a. The purpose of this unit is to work with reliable sources and the annotated bibliography.
- b. We will focus on proper and ethical citations by looking at a variety of citation methods.
- c. We will be continuing to look at the QUEST framework in relation to articulating our purpose, retrieving additional information about a topic and identifying and evaluating perspectives and bias.
- d. We will focus on activities to interpret and synthesize this information in order to create the literature review.
- e. We will continue to reflect in our PREP journal entries.
- f. By the end of the unit, students should have completed the annotated bibliography and literature review.
- g. All Big Ideas will be touched upon in the unit with a greater focus on Big Idea 3.

#### **3. Unit 3: Research Design and Methods (End of October to End of December)**

- a. We will begin the unit by looking at and learning various methods, designs and approaches to research. This will help students be able to choose the most appropriate method for their topic of inquiry and the rationale for choosing that method.
- b. We will work on accessing and managing our prior information using these new strategies. During this unit, the Inquiry Proposal must be submitted (November 15th) for approval.
- c. Additionally, we will continue our work with ethical research and start the IRB proposals so that research can be conducted. By this point, all questions should be revised and focused.

#### **4. Unit 4: Findings and Analysis of Data (January to Beginning of February)**

- a. This unit follows the submission of the Inquiry Proposal and will focus on the collection of data from creating surveys, working with expert advisers, and various other experiments. This will focus on the designing, planning and implementing of inquiry.
- b. At this point, students should all be in a different place regarding time and research conducted. To aid all students, we will focus on both peer review and individual teacher conferences.
- c. Once data has been collected, we can begin to synthesize, analyze and evaluate its place and role in the academic paper.

#### **5. Unit 5: Data Interpretation and Final Composition (Mid-February to Beginning of March)**

- a. The purpose of the unit is to take the data collected to coach and draft the writing of the academic paper. The focus will be on formulating a well-reasoned argument while extending your ideas, question and process to create a new understanding.
- b. Additionally, you will take time to reflect upon the process and larger significance of your research and work.
- c. Again, time will be fluid as all students will be in a different place at different times. We will be focusing on peer review and creating multiple drafts of the paper.
- d. The goal is to have the paper near completed by the middle of March so we can begin the POD as grades are due to the College Board by April 30th.

#### **6. Unit 6: Oral Presentation and Publication (Mid March to Mid-April)**

- a. After the submission of the academic paper, we will shift our focus from the academic paper to the presentation and oral defense of your research.
- b. In this unit, we will prepare, practice and deliver your oral defense.
- c. The focus will be building off of the previous units while also communicating through appropriate media, and effectively engaging an audience while defending inquiry choices.
- d. We will practice the presentations and evaluation questions to be asked by the evaluation committee.

#### **7. Unit 7: Post Submission Work and Final Exam (End of April to End of May)**

- a. After all projects and presentations have been submitted we will focus on helping bridge the gap between AP Seminar and AP Research. The goal is to have the incoming class of AP Seminar students even more prepared than you were.
- b. We will do this by meeting with and writing letters to the AP Seminar students to help them adapt and adjust to the changes that will be coming in AP Research.
- c. Your task will be to create a summer assignment for the incoming AP Research students. This is a time to reflect and celebrate the hard work and dedication you have given over the past 8 months.

*This syllabus and course outline are subject to change as Chelmsford High School seeks to continually improve the learning experiences for all students.*

***“We foster PRIDE\* in our pursuit of excellence.”***

**PRIDE refers to our five core values – Perseverance, Respect, Integrity, Dedication, and Empathy. These five pillars represent our points of emphasis in supporting the development of quality students and quality citizens.**