

## **Curricular Requirements**

*The page numbers listed below are not the only places in the syllabus where the topics may be found. The purpose of this was to ensure I had covered all of the topics in my syllabus.*

CR1a Students develop and apply discrete skills identified in the learning objectives within the Big Idea 1: Question and Explore.

See pages 9, 10, 11

CR1b Students develop and apply discrete skills identified in the learning objectives within the Big Idea 2: Understand and Analyze.

See pages 10, 11

CR1c Students develop and apply discrete skills identified in the learning objectives within the Big Idea 3: Evaluate Multiple Perspectives.

See pages 11, 13

CR1d Students develop and apply discrete skills identified in the learning objectives within the Big Idea 4: Synthesize Ideas.

See page 12, 13, 14

CR1e Students develop and apply collaboration skills identified in the learning objectives within the Big Idea 5: Team, Transform, and Transmit.

See page 12, 13, 15, 16

CR1f Students develop and apply reflection skills identified in the learning objectives within the Big Idea 5: Team, Transform, and Transmit.

See page 5, 15, 16

CR1g Students develop and apply written and oral communication skills identified in the learning objectives within the Big Idea 5: Team, Transform, and Transmit.

See page 12, 13, 16

CR2a Students develop an understanding of ethical research practices.

See page 3, 5, 6, 11, 13, 14, 16

CR2b Students develop an understanding of the AP Capstone™ Policy on Plagiarism and Falsification or Fabrication of Information.

See page 8, 13, 14

CR3 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:

- Introduction
- Method, Process, or Approach
- Results, Product, or Findings
- Discussion, Analysis, and/or Evaluation • Conclusion and Future Directions
- Bibliography

See page 4, 6, 14, 15, 16

CR4a Students document their inquiry processes, communicate with their teachers and any expert advisors, and reflect on their thought processes.

See page 4, 5, 10, 12, 13, 14, 15, 16

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.

See page 3, 4, 5, 12, 13, 15

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.

See page 2, 16

## Course Overview

AP Research is unlike most classes in that it is not content specific. Instead students will be expected to explore in-depth an individual topic of interest.

*From the AP Course and Exam Description (page 8)*

*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.*

*(Note: AP Seminar 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.)*

## Course Goals and Requirements

- The students will throughout the course develop, apply, and demonstrate understanding of the **Five Big Ideas**:
  1. **Question and Explore**: Critical thinking and reading that leads students to ask questions that make them want to find out more about specific topics / subjects.
  2. **Understand and Analyze**: Students will develop an understanding of the various perspectives of topics, points of view, purpose, etc. Their analysis will allow them to determine and predict consequences of arguments.
  3. **Evaluate Multiple Perspectives**: Recognizing the complexity of an issue by identifying biases and assumptions to help determine the validity of the arguments and multiple perspectives / viewpoints for a topic.
  4. **Synthesize Ideas**: After questioning, analyzing, and evaluating multiple perspectives students will determine their own perspectives for their topic to add new information to the ideas and research of others. Students become part of the academic community related to their topic of study.
  5. **Team, Transform, and Transmit**: Engaging in peer review and their own personal reflections students will develop, and refine their research question / arguments into a research paper to present in an effective meaningful oral presentation.
- The student will gain a thorough understanding of **ethical research practices**. They will follow the AP Capstone Policy on Plagiarism and Falsification or Fabrication of Information. They will implement ethical research practices in their own research for the course. **[CR2a]**
- The student will conduct their own research using inquiry research methods on a topic of their own personal interest. They will receive approval for their research and they will then develop a **4,000 to 5,000 word academic paper** (possibly consulting an expert in the field, when possible, to advise them on their research). The

research paper will be in line with other academic papers in the field of student they selected. **[CR3]**

- The paper should include the following (depending on the field of study the order and headings may vary):
  - **Introduction**
    - Provides background and contextualizes the research question/ project goal and initial student assumptions and/or hypotheses
    - Introduces and reviews previous work in the field, synthesizing information and a range of perspectives related to the research question/project goal.
    - Identifies the gap in the current field of knowledge to be addressed.
  - **Methods, Process, or Approach**
    - Explains and provides justification for the chosen method, process, or approach.
  - **Results, Product, or Findings**
    - Presents the findings, evidence, results, or product.
  - **Discussion, Analysis and/or Evaluation**
    - Interprets the significance of the results, product, or findings; explores connections to original research question/project goal.
    - Discusses the implications and limitations of the research or creative work.
  - **Conclusion and Future Directions**
    - Reflects on the process and how this project could impact the field.
    - Discusses possible next steps.
  - **Bibliography**
    - Provides a complete list of sources cited and consulted in the appropriate disciplinary style.
- The nature of students' inquiries is open-ended in that students' approaches to their investigations and the type of research they conduct may vary widely. However, every student is expected to produce a paper that addresses his or her inquiry, and all papers will be subject to the same standards of college-level work that demand research conducted at a deep, rigorous level.
- Students must avoid plagiarism by acknowledging, attributing, and/or citing sources throughout the paper and by including a bibliography. Students must also observe ethical practices when gathering information through such vehicles as interviews or discussions, and be prepared to sign agreements with individuals, institutions, or organizations that provide primary and private data. Students should also be prepared to obtain institutional review board (IRB) approval prior to engaging in research involving human subjects. Graphs, data tables, images, appendices, and the bibliography are not part of the total word count for the academic paper.
- Students will be required to have a **reflection portfolio (PREP)** to document their work during the course. Throughout the course students will be asking questions to

help determine solutions and/or conclusions. The PREP journal is for the student to document their work, thoughts, ideas, reflections, etc. **[CR4a]**

- The PREP journal will include the following:
  - Research Question One Slide Presentation (and updated versions as the students continues to modify, update, and improve).
  - Notes and reflections on class notes and presentations throughout the course.
  - Reflections and constructed feedback on other student presentations.
  - Documentation of their success and struggles as they move through the process...reflective journal entries.
  - Scoring and notes on sample research papers.
  - Contact and notes when contacting expert advisor(s).
  - Notes and reflection on student group discussions and one on one teacher meetings.
  - Reflection notes on progress meetings with teacher and peer reviews. Students discussion on why they did or did not make changes based on the constructed feedback. **[CR1f]**
  - Feedback to group members on their research question, method choices, and findings / conclusions.
  - Matching their paper with what is expected on the Research rubric.
  - One of the main parts of the PREP will be the annotated bibliography of sources that are critical for the student's research question. Students will have a minimum number of twenty-five sources needed for their research. They may or may not use all of the sources in their final research paper.
  - Draft versions of their research paper.
  - Final copy of their completed research paper.
  - IRB Proposal Form and any other permission forms. **[CR2a]**
  - Surveys and any other documentation of their individual original research.
  
- The Prep journal will be kept in a GoogleDocs shared with the teacher. The teacher will have access to the student's GoogleDoc folder throughout the year.
  
- The student will be allowed to organize their PREP journal in a manner they believe best benefits their learning style and organization. The student will submit their organizational plan to the teacher for approval.
  
- The PREP journal will be a way for the teacher to conduct formative and summative grade checks throughout the course of the school year.
  
- One main purpose of the PREP journal is to help students see that the research process is recursive, not linear. This will help students see that they will move back and forth between the *Big Ideas of the Quest*. (The *Quest* poster is on the wall in the front of the classroom for students to see everyday while in class. This helps remind the students about: Question, Understand, Evaluate, Synthesize, and Team.) **[CR4a] [CR4b]**

- Before students conduct their research they will submit an **Inquiry Proposal**. They will complete a typed proposal printed and turned in to the teacher. A copy will also be kept in their PREP journal. **[CR2a and CR3]**
  - The proposal will include the following:
    - Name of Student
    - Working title of your research
    - Research question.
    - Reasons for choosing the topic of interest.
    - Identify the gap in your preliminary research. How does the gap influence the development of your research question?
    - Data or information that will have to be collected to answer the research question
    - Brief list of possible sources of information to discuss during the introduction of the paper.
    - Chosen or developed research method to collect and analyze the above data/ information.
    - Equipment or resources needed to collect data or information.
    - Anticipated challenges to implementing the chosen research method.
    - What biases do you have toward your research topic? How will you monitor these biases during your research process?
    - Expected approvals needed and from where (IRB, etc.)
    - Place for Teacher Approval Notes and Signature at the end of the proposal.
  - The student will meet with the teacher to discuss the Inquiry Proposal, and final approval will be granted by the teacher. Once the student has teacher approval the students will:
    - Be allowed to conduct their individual research.
    - Seek out an expert to help consult them on their research.
  - Approval for any proposal which requires the involvement of human subjects (surveying people) or any other potential ethical issues will require the student present their proposal to an Institutional Review Board (IRB).
    - All students will be introduced to the purpose of an Institutional Review Board. All students will complete a form on why they do or do not require an IRB.
    - Students who do require an IRB will be required to complete a more thorough proposal form to present to an IRB committee. Once the committee approves the proposal the proposal will be approved by the AP Research teacher.
    - Our school has an IRB committee whose members are:
      - Vice-Principal for Curriculum and Instruction
      - School Nurse
      - Parent from PTSA
      - School Social Worker
      - AP Research Teacher will be present at the student proposal.
- Students will throughout the course present to the class their research question, methods, and progress. All students at the end of the course will develop a 15–20

minute presentation (using appropriate media) and deliver it to an **oral defense** panel of three evaluators.

- The presentation should focus on the student's research question/project, the information collected to address the question, and the different perspectives and how those perspectives relate to the student's own findings and conclusions.
- Students may choose any appropriate format for their presentation as long as the presentation reflects the depth of their research.
- Students whose academic paper is accompanied by an additional piece of scholarly work (e.g., performance, exhibit, product) must arrange for the teacher and panelists to view this work prior to the presentation and oral defense.
- The panel should ask one question pertaining to the student's research or inquiry process, one question focused on the student's depth of understanding, and one question about the student's reflection throughout the inquiry process as evidenced in his or her process and reflection portfolio (PREP). The fourth question and any follow-up questions are at the discretion of the panel. Students' responses to each question should be brief and concise (no more than a few minutes).
- The panel should consist of the AP Research teacher and two additional, adult panel members (expert advisers or discipline-specific experts, chosen by the AP Research teacher).

### **Textbook Resources**

- *Practical Research: Planning and Design* by Paul D Leedy and Jeanne Ellis Ormrod (11th ed.)
- *Bedford Researcher* by Mike Palmquist (4th ed.)
- *Research Design* by John W. Creswell (4th ed.) (online as well as in Research Library at HHS)

### **Website Resources**

- EBSCOhost: <http://bit.ly/APCapstoneEBSCO>
- National Conference of Undergraduate Research: <http://www.ncurproceedings.org>
- Google Scholar: <https://scholar.google.com>
- Cambridge Core: <https://www.cambridge.org/core>
- Oxford Journals: <http://www.oxfordjournals.org/en>
- Springer: <http://link.springer.com>
- ERIC: <https://eric.ed.gov/?advanced>
- Wilson Center: <http://wilsoncenter.org>
- USC Libraries Research Guides: <http://libguides.usc.edu>
- Purdue OWL Research: <https://owl.english.purdue.edu/research>
- Style Manuals by Subject Discipline: <http://www.lib.umd.edu/tl/guides/citing-styles>
- AP Central - AP Research Course Home Page: <http://bit.ly/2aPAqsi>
- TED Talks: <https://www.ted.com>
- Educational TED Talks: <http://ed.ted.com>
- Methods: [http://www.socialresearchmethods.net/kb/stat\\_t.php](http://www.socialresearchmethods.net/kb/stat_t.php)

### **Grading Policy**

- Grades will be a combination of quizzes, oral presentations, PREP journal entries, and the completed parts of the research paper.
- The Grading Scale will be according to school policy:

- A- 93 - 100
- B- 85 - 92
- C- 75 - 84
- D- 70 - 74
- F- Below 70

### **Student Expectations**

- Students throughout the duration of the course will be expected to:
  - 1. Turn in all assignments and meet all due dates.
  - 2. Complete and/or add a copy of all class assignments in their Online PREP Journal.
  - 3. Be respectful and participatory during all classes.
  - 4. Practice and conduct ethical practices by using following the AP Capstone Policy on Plagiarism and Falsification or Fabrication of Information (see below). Students will also use Turnitin, complete an Internal Review Board (IRB) document, and always practice academic honesty.

### **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. **[CR2b]**
- To ensure students follow the policy above their draft copies and final copies of their entire research paper will be checked with [turnitin.com](https://www.turnitin.com). In doing this the work students submit at the end of the course will be their own work.
- There will be specific lessons and examples presented in class to make sure students learn, understand, and follow the policy. This is one of the most critical parts of the class, and it is treated with the highest importance.
- **Students will be made aware in on uncertain terms that if they incorporate falsified or fabricated information they will be receive 0 points for that part of the AP Rubric, and they will also receive a 0 on that part of the paper for their grade in the course as well. [CR2b]**
- **[CR2b] — Students develop an understanding of the AP Capstone Policy on Plagiarism and Falsification or Fabrication of Information.**

## Daily and Monthly Timeline | Units of Study

### Unit 1: Introduction to Research

#### Summer Work (June and July)

- When students enter the AP Research class on day one it is important for students to have some idea of what type of topics they are interested in pursuing for their final research project. It is not expected or necessary for the student to have their topic decided, but during the summer is an excellent opportunity for students to explore what topics they might find interesting.
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- The idea behind the summer work is from Big Idea 1: Question and Explore, and its *Enduring Understanding 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.*
- I have the students look at the first two essential questions for **Big Idea 1**:
  - What do I want to know, learn, or understand?
  - What questions have yet to be asked? **[CR1a]**
- The summer work assignment will be the students first Prep Journal assignment. The assignment will have students do the following:

#### I. Topics

- Select FIVE different topics from FIVE different disciplines that you are possibly interested in researching.
- Suggestion to help find different disciplines or fields of study: Find the online catalog for the university you hope to attend and look through the different colleges and majors.
  - *Example: The University of Tennessee, Knoxville:*
    - <http://catalog.utk.edu/content.php?catoid=16&navoid=1627>
    - Search: "UTK 2016 Fall Catalog Majors" **[CR1a]**

#### II. Questions / Inquiry

- Write out a minimum of TWO questions to base your research on for each of the five topics selected in Part I.
- Discuss why these questions are important in gaining a greater understanding of the topic. Inquiry based learning...  
*Inquiry is the act of asking questions in order to gather or collect information.*

#### III. Research

- Find a MINIMUM of THREE sources for each of the FIVE different topics. • The sources should be sources you believe are trustworthy / accurate.

#### IV. Annotated Bibliography

- Write out an **annotated bibliography** (*This is a skill you are very familiar with from AP Seminar.*) for each of the THREE sources you find for each of the Five topics.
- What is an annotated bibliography?

- An annotated bibliography is a list of citations to books, articles, and documents. Each citation is followed by a brief (usually about 150 words) descriptive and evaluative paragraph, the annotation. The purpose of the annotation is to inform the reader of the relevance, accuracy, and quality of the sources cited. **[CR4a]**

#### **V. Beginning of School**

- All the information should be typed and ready to turn in the second day of school. You should also be prepared to discuss your different topics with the class during the first week of school.
- This assignment will be electronically added to your Prep Journal which will be discussed the first week of school.

#### **August - September**

- **Introduction to Academic Research Articles**
- **EBSCO and other Academic Resources**
- **Evaluation of Sources**
- **Discussion of Ethical Research Practices**
- **One-Slide Research Problem**
- **Continue with PREP Journal: reflections on the research process [CR4a]**
- **John W. Creswell's *Research Design* : Part 1 Preliminary Considerations**

#### **Assessments**

- During the first week of school students will discuss one of their topic ideas with the class.
- All of the student ideas will be compiled into a list, and as a class and small group assignment students will discuss the merits of the list of topics. This will help provide students with a great deal of topics from which to pull from in determining their final research topic. **[CR1a] [CR1b]**
- Students will be introduced to the **Prep Journal**, and they will create their files in GoogleDocs. This will be the same process they used in their AP Seminar course.
- Activity from AP 2016 Student Workbook: Bridging the Gap AP Seminar to AP Research.
- Introduction of the AP Rubrics for the AP Research paper. Students will complete a short activity where they highlight and explain each part of the rubric.
  - Students will then read a sample research paper from 2015-16. The research paper is on the AP Research Exam page. The students will apply the rubric to the sample paper.
  - Students will read five additional sample research papers during the first two months of the class. The students will reflect on each of the papers in their PREP Journal. **[CR4a]**
- Students will choose an initial topic and conduct preliminary research for that topic. As student conducts the research the student will be required to have an **annotated bibliography** for each of the sources they read and use to help develop their research gap.
- Students will be introduced to what is meant by a **“gap”** in the current academic research. Students will conduct a short research activity on suicides among young people in Greenland. They will use **EBSCO** to research the topic. Students will complete a research problem statement for what might be a possible researchable issue for looking at suicides in Greenland and other Arctic regions. This assignment will be used as an example of what the process is they will need to follow in their initial research and looking for a gap in the field of

study. There are limited papers on this topic, and it provides a good way for students to start asking questions about what they know and do not know about the topic. It also has them look for additional information on the questions they still have on the topic. The helps the student to think about the gap in the current field of research. Students will discuss the evidence presented in the articles and the reasoning used by the author of the article. (E.U. 2.2) This same topic will be revisited in October when the lesson is on methods and looking and possible research methods that could be used to fill the gap in the knowledge on this particular example. **[CR1b]**

- Activity on **plagiarism**: Students will look at 10 different examples and discuss if the examples are plagiarism. Students will also read pages 67-70 in *Practical Research*. **[CR2a]**
- **Ethical Research**: Students will read the article by Karen Maschke, “Human Research Protections: Time for Regulatory Reform?,” and there will be a small group and whole class discussion on the article as it relates to the topic of ethical research. **[CR2a]**
- Activity: Transforming a Topic or Issue into a **Problem Statement**. **[CR1c]**
- Activity: Creating five different problem statements from five different topics used in five separate short readings.
- Small group assessments / peer review of annotated bibliographies: looking at the usefulness of the students written examples.
- Students conduct DATA DIGS. This is where the student will take a source they found to be very useful and use the bibliography to help them find additional sources they can explore to help determine the gap in the research and learn more about the topic. Students will analyze if the sources in the bibliography would be beneficial to their question. Students will need to start to recognize it is not having a great deal of sources but the right sources when conducting their research. **[CR1c]**
- Electoral College Research Activity: Students will find four total sources where two are PRO Electoral College and two are ANTI Electoral college. Students will examine the different perspectives, develop a chart for their group prevention on the different points of view. They will then develop a resolution or solution to the opposing viewpoints. **[CR1c]**
- Class discussion and short activity on the differences between assumption and hypotheses.
- Activity: From RAVEN to **PAARC**: Use of YouTube interviews of Jenny McCarthy’s credibility on the topic of autism. Compare her interviews with the article “Vaccines and Autism: A Tale of Shifting Hypotheses,” and use PAARC to evaluate the different sources. **[CR1b] [CR1c]**
- Finding the Gap Activity: Students will read two sources on adolescent drug prevention methods. They will evaluate the credibility of each source using PAARC. They will then discuss what is missing from the two sources that requires additional research. This will help students to develop and understanding of finding a “gap” in the research. **[CR1a]**
- Students will be given different problem statement templates. They will read three articles on three different topics, and they will complete the problem statement for each of the articles. **[CR1a]**
- Students develop a **one slide presentation** on a problem statement of their choosing. They will present their **focused research question** to the class. Students will critique the students presentation with constructive criticism and questions. Students will document their comments and reflections in their Prep Journal. **[CR1a]**

- **Curricular Requirements: [CR1a] [CR1b] [CR1c] [CR2a]**

## Unit 2: Beginning the Research Process

### October - November

- **Methods of Research**
- **One Slide Research Problem**
- **Inquiry Proposal (DUE the week of Thanksgiving Holiday)**
- **Identify Possible Experts**
- **Identify Acceptable Citation Style for Area of Study**
- **Identify Acceptable Research Method**
- **Continue with PREP Journal: reflections on the research process [CR4a]**
- **John W. Creswell's *Research Design* : Part II. Design Research**

• This is one of the most critical times of the course. Students will finalize their research topic, look for possible experts in that field of study, determine an appropriate type of research method, and complete their Inquiry Proposal. This sets the stage for when students conduct their actual research and write their paper. It is essential students select a topic they have a high degree of interest in, and the topic must also have some “gap” the student will be researching.

### Assessments

- Students read and outline Part II of *Research Design*. They will be quizzed on the different types of research.
- Students will read a sample research paper from 2015-2016 where they will focus on **synthesis. Students must first discuss and define synthesis.** The students will then read the paper and explain how the paper's discussion and conclusion clearly (or not so clearly) synthesized the information. **[CR1d]**
- The Role of the Expert Advisor: Using the 2016 AP Research Student Workbook activities:
  - *Whose Line Is it?* - Determine what the student and expert advisor can and cannot do.
  - *Expert Advisor Toolkit* - Look at resources to find possible experts.
  - *The Five Types of Expert Advisor / Scholar Interactions* - Discuss acceptable interactions.
  - Students will document all communications with expert advisors in their PREP Journal. **[CR4a]**
- Students will present their One Slide Research Problem to the entire class TWICE during a three week period. Students will provide feedback after each of the presentations. The students' reflections and feedback notes will be kept in their PREP Journal. The purpose of this is for students to fine tune their research problem. Students will also develop an elevator speech to help provide a quick understanding of their topic. They will present the elevator speech once to the entire class. They will present it once to their small groups before the entire class presentation. **[CR1d] [CR1g] [CR1e]**
- The Prep Journals will be checked at the end of all the class presentations. The Prep Journal is one of their main grades for all grading periods. Also, each student will have a “check-in” discussion with the teacher. They will discuss how they see their progress is going with their research. **[CR4b]**
- Activity from AP 2016 student workbook: Hopping on Board, From Passenger to Participant, Healthy Halos Experiment, and Approach, Design, and Method of Inquiry.
- Methods Appropriate for Discipline from the 2016 Student Workbook: “Discipline-specific Style for Academic Papers.”
- Types of Methods Activities: Students will conduct short quantitative and qualitative research by observing student behavior in different classrooms. Students will determine what they as a class want to observe. Then each will visit a different classroom and conduct the observation.

They will then take their results and apply using a quantitative and then a qualitative research method. This will be the main introduction to the different types of methods.

- Students complete the Inquiry Proposal handout. The handout has 12 parts for the student to complete. The draft inquiry proposal is due the first week of November. The students will work in their small groups to discuss each others proposals. The students will write a reflection in their PREP journal.

- All Inquiry Proposals are due the Monday before the Thanksgiving Holiday.

- Activity using Purdue OWL website on the acceptable citation format for each discipline.

Students will be given different types of citations to identify and match with the correct discipline.

**[CR1g]**

- **Curricular Requirements: [CR1d] [CR1c] [CR1e] [CR1g] [CR4a] [CR4b] [CR2a] [CR2b]**

### Unit 3: Preparing and Presenting Inquiry of Study

#### November - December

- **Methods - Data Collection**
- **Identify Expert Advisors**
- **IRB's [CR2b]**
- **Intensive Research**
- **Literature Review**
- **Continue with PREP Journal: reflections on the research process [CR4a]**
- **John W. Creswell's *Research Design* : Part II. Design Research**

#### Assessments

- Some students will want to conduct surveys as their research method. Activity: *Anticipating Problems with Conducting Surveys* (2016 AP Research Student Workbook). Students respond and reflect on "conducting a Survey" and the table, "Matrix of Kinds of Questions Asked in Survey Research."
- Survey Activity #2: Students determine a strategy for their survey: paper, online, Likert scale, etc.
- Students will write an email they plan to send to possible expert advisors.
- Students will complete the IRB form for their intended research. It will then be determined which students will have to present their proposal to the school's IRB or to an other organization / businesses IRB committee. **[CR2a] [CR2b]**
- Before the end of the semester students will need to have the following completed:
  - Literature Review Draft - This will include all of the students annotated bibliographies for their research topic. **[CR1d]**
  - Methods Outlined **[CR3]**
  - Introduction of their intended paper Draft **[CR3]**
- **Curricular Requirements: [CR4a] [CR1d] [CR2a] [CR2b] [CR3]**

## Unit 4: Researching and Writing the Academic Paper

### January - February

- Continue with PREP Journal: reflections on the research process [CR4a]
- John W. Creswell's *Research Design* : Part II. Design Research Review when needed. [CR3 - Methods]

### Assessments

- This is the most critical part of the course where students will be working the majority of the time on completing their research, developing and determining the conclusions to their research, and completing their first draft of the entire research paper. [CR3]
- **Students will complete their draft paper that much include all of the following:**
  - **Introduction (first draft in December, second draft end of January)**
  - **Methods, Process, or Approach (first draft in December, second draft end of January)**
  - **Results, Product, or Findings (first draft end of January)**
  - **Discussion, Analysis, and /or Evaluation (first draft end of January)**
  - **Conclusion and Future Directions (first draft end of January)**
  - **Bibliography (first draft in December, second draft end of January) [CR3]**
- Students will once every two weeks provide the class with an update on their research. Students will provide feedback and reflections in their PREP journal. [CR4b] [CR1f]
- Students will meet with the teacher once every two weeks to provide and update of their progress. [CR4b]
- Students will document all communications with their expert advisor in their PREP Journal. [CR4a] [CR4b]
- Students will be assigned two other students to peer review. They will conduct a minimum of THREE peer reviews of the different components of the paper. They will provide feedback on the different components of the paper as it relates to the AP Rubric for the Research paper. [CR1e]
- A complete draft of the research paper is due the last week of February. [CR3]
- **Curricular Requirements: [CR3] [CR1e] [CR4a] [CR4b]**

## Unit 5: Finalizing and Presenting the Research Paper

### March - May

- Continue with PREP Journal: reflections on the research process [CR4a]
- Finalized copy of the Research Paper [CR3]
- Presentation Skills
- Oral Presentation [CR5]
- Parent Night / Library Poster Presentations

### Assessments

- During the month of March students will complete their final draft of their paper, peer review two other student's papers, and submit their entire paper to be checked with turnitin.com. The paper will be due the end of March. [CR2a] [CR1e]
  - **The FINAL PAPER IS DUE BY APRIL 1st.**
- During the month of April students will prepare for their oral presentations. [CR5]
  - Students will complete an activity using the Oral Presentation Rubric. Students will watch three different presentations from papers they read from the first semester. They will use the AP Rubric to determine how the student did during the presentation.
  - Students will draft a copy of their Oral Presentation. They will share their draft copy in their small groups for peer to peer feedback. Once students have finalized their presentation they will be given two days to practice with their small groups presenting orally. Students will be instructed on the importance of practice and having a natural flow in their presentation. [CR1g]
  - Students will present their Oral presentation to the class. Students will provide feedback and reflect on their feedback in their PREP journal. [CR4a]
    - Students will complete the Oral defense of their paper starting mid-April. The oral defense will take place in the school's library.
- During the month of May students will create a Poster Presentation for their topic. There will be an evening where parents, teachers, and AP Seminar students can come and view the student's final results. Students will reflect on how their research fits in with the current body of knowledge on their specific topic. The student will also as part of their poster provide additional questions that might be need to be answered to even know more about their topic. This would be a *What's Next?* part of their paper. This will count as the students final grade for the semester. [CR1f]
  - **The PREP Journal will be completed at the end of each grading period. At the end of each grading period (as well as times after major presentations) the teacher will provide feedback and comments on each students PREP Journal. The teacher will provide students with feedback on their PREP journal during their teacher-student individual meetings. [CR4b] The final PREP Journal will include all of the following:**
    - All documentation during the course of the year.
    - All reflections from peer to peer discussions, teacher meetings, and presentations.
    - All recorded documentation and notes on communications with Expert advisor. [CR4a]
- **Curricular Requirements: [CR2a] [CR1e] [CR5] [CR4a]**