

# D H 350B: DENTAL HYGIENE RESEARCH & CAPSTONE PROJECT II

## Foothill College Course Outline of Record

Heading	Value
<b>Effective Term:</b>	Summer 2024
<b>Units:</b>	5
<b>Hours:</b>	5 lecture per week (60 total per quarter)
<b>Degree &amp; Credit Status:</b>	Degree-Applicable Credit Course
<b>Foothill GE:</b>	Non-GE
<b>Transferable:</b>	CSU
<b>Grade Type:</b>	Letter Grade Only
<b>Repeatability:</b>	Not Repeatable

## Student Learning Outcomes

- Students will be able to analyze and discuss writing techniques used in various scientific literature.
- Students will be able to identify subtopics for their literature review and create an outline incorporating a minimum of 25 current scientific literature.

## Description

The second in a series of three capstone courses; continuation of D H 350A. Emphasis is placed on critical analysis of scientific literature. Structuring a literature review based on themes and patterns as well as grouping resources based on findings will be discussed. Students will also review several published review articles, with an emphasis on critiquing the way ideas and arguments are presented and cited in each article. At the end of the quarter students will create an outline of their literature review and list the key arguments of their literature review. Intended for students in the Dental Hygiene Baccalaureate Degree Program; enrollment is limited to students accepted in the program.

## Course Objectives

The student will be able to:

- Locate a minimum of 15 current literature that will help to answer their research question.
- Critically appraise literature based on the criteria given.
- Identify subtopics to be included in their literature review.
- Structure their literature review based on themes.
- Create an outline of their literature review listing the key arguments.
- Analyze and critique the presentation of various scientific literature.

## Course Content

- Critical appraisal of research and selection of resources
  - Credibility of a source
    - Peer-review/scholarly
    - Sources of information
    - Evaluating online sources
    - Author credentials
      - Affiliations
      - Conflict of interest

- Year of publication
  - Evaluation of the journal
- Relevance of a source to a chosen topic
    - Similarity of the target population
    - Intervention
    - Intent of study
  - Validity and reliability
    - Test-retest reliability
    - Internal consistency reliability
    - Validity of the measure
  - Appropriateness of research design
    - Methodological weaknesses
  - Appropriateness of sampling methods
    - Random assignments
    - Inclusion and exclusion
  - Potential for biases
    - Sampling bias
    - Selection bias
    - Recall bias
    - Response bias
  - Statistical significance
    - Significance of the presented results
  - Strengths and weaknesses
    - Sample size
    - Study design
    - Results of statistical significance
    - Confounding factors
    - Limitations
    - Interpretation of the findings
  - Collecting and analyzing data
    - Organizing selected sources
    - Building a table of definitions
    - Finding differences and similarities among research
    - Making connections between different texts
    - Summarizing key findings
      - Techniques for writing a summary
  - Structuring a literature review
    - Developing the structure
      - Synthesizing themes and patterns
      - Grouping sources
      - Subtopics
    - Critiquing the presentation of a research article
      - Critical reading
        - Argument steps
        - Flow of arguments
      - In-text citation techniques
        - Integral
        - Non-integral
        - Disciplinary difference in reporting verbs
        - Analysis of reference techniques
          - Effective and unacceptable citations
    - Outline of the literature review
      - Introduction
      - Main body
        - Subtopics
      - Conclusion

## Lab Content

Not applicable.

## Special Facilities and/or Equipment

On-going access to a computer or personal device with internet. This course is taught online.

## Method(s) of Evaluation

Methods of Evaluation may include but are not limited to the following:

Weekly written assignments  
Participation in discussions  
Submission of the outline

## Method(s) of Instruction

Methods of Instruction may include but are not limited to the following:

Course materials delivered online in modules - reading materials and video  
Weekly written feedback  
Online discussions  
Annotated feedback on the outline

## Representative Text(s) and Other Materials

Galvan, J.L., and M.C. Galvan. Writing Literature Reviews, 7th ed.. 2017.

Ridley, Diana. The Literature Review, 2nd ed.. 2012.

Although the Ridley text is older than the suggested "5 years or newer" standard, it remains a seminal text in this area of study.

## Types and/or Examples of Required Reading, Writing, and Outside of Class Assignments

- A. Find a minimum of 15 additional scholarly articles on your topic and analyze each article based on the criteria given.
- B. Group your sources based on the findings of the studies and how you intend to use them in your literature review.
- C. Read the article, "Diabetes mellitus and inflammatory periodontal diseases," and critique the presentation of the article by answering the following questions, for example: Do you think the authors discussed the ideas/topics in a logical order? Explain.

## Discipline(s)

Dental Technology