

RESP-340: CRITICAL REVIEW AND METHODOLOGY OF RESEARCH

Effective Term

Fall 2026

CC Approval

12/06/2024

AS Approval

02/13/2025

BOT Approval

02/20/2025

COCI Approval

06/02/2025

SECTION A - Course Data Elements

CB04 Credit Status

Credit - Degree Applicable

Discipline

Respiratory Care

Minimum Qualifications

And/Or

Respiratory Technician (Any Degree and Professional Experience)

Subject Code

RESP - Respiratory Care

Course Number

340

Department

Respiratory Therapy

Division

Health Occupations (HEOC)

Full Course Title

Critical Review and Methodology of Research

Short Title

Crit Review & Method of Resch

CB03 TOP Code

1210.00 - *Respiratory Care/Therapy

CB08 Basic Skills Status

NBS - Not Basic Skills

CB09 SAM Code

B - Advanced Occupational

Rationale

New upper division course for the new baccalaureate degree in Respiratory Care.

SECTION B - Course Description

Catalog Course Description

This course explores the analysis of research design and methodology in health care and health sciences. Emphasis will include research evaluation and interpretation of results, design methodology, the planning and approval process, data collection and analysis, as well as communication and presentation of the results.

SECTION C - Conditions on Enrollment

Open Entry/Open Exit

No

Repeatability

Not Repeatable

Grading Options

Letter Grade Only

Allow Audit

No

Requisites

Prerequisite(s)

Completion of RESP-330 with a minimum grade of C.

Limitation on Enrollment

Enrollment is limited to students accepted into the Respiratory Care Baccalaureate Degree program.

Requisite Justification

Requisite Description

Course in a Sequence

Subject

RESP

Course #

330

Level of Scrutiny

Content Review

Upon entering this course, students should be able to:

1. Compare and contrast leadership and management and justify rationale why health organizations need both.
 2. Establish and optimize goals using motivational theories.
 3. Characterize the complexity of healthcare systems and workers and be able to apply good communication and conflict management to various situations.
 4. Strategically analyze the importance of planning, decision making, training, delegation, employee evaluations and collaboration between and within healthcare teams.
 5. Apply concepts of budgets and budgeting, significant functions and elements of budget, and enumerate the principles and rules of budgeting as they apply.
 6. Apply the role of ethics in health care practices.
 7. Demonstrate the effect culture can have on leading healthcare organizations.
 8. Outline metrics leaders can use to measure their efficiency, effectiveness, and quality.
 9. Develop a working knowledge of the various operations of the Respiratory Care department.
 10. Develop a relationship with a healthcare provider who is in or has had experience with leadership.
 11. Analyze and evaluate data using various analysis models to draw conclusions, inform decisions, and make recommendations.
 12. Differentiate between simple and complex decisions and explain the process involved in making complex decisions.
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SECTION D - Course Standards

Is this course variable unit?

No

Units

3.00000

Activity Hours

108

Outside of Class Hours

54

Total Contact Hours

108

Total Student Hours

162

Distance Education Approval

Is this course offered through Distance Education?

Yes

Online Delivery Methods

DE Modalities	Permanent or Emergency Only?
Entirely Online	Permanent

SECTION E - Course Content

Student Learning Outcomes

Upon satisfactory completion of the course, students will be able to:

1. Critically review, analyze, and interpret published research.
2. Develop research design, conduct or review a study, critically assess and perform analysis of quality measurement.

Course Objectives

Upon satisfactory completion of the course, students will be able to:

1. Describe the three approaches to research.
2. Describe three components involved in an approach.
3. Describe and differentiate between quantitative and qualitative design.
4. Describe mixed method designs.
5. Discuss research approaches as worldviews, designs, and methods.
6. Describe criteria for selecting a research approach.
7. Describe how to determine a research topic.
8. Describe how to perform a literature review.
9. Describe the use of style manuals.
10. Describe Quantitative and Qualitative theory in research design.
11. Demonstrate how to write a proposal.
12. Describe how to come up with writing ideas.
13. Describe the model for an introduction.
14. Describe the significance and meaning of a purpose statement.
15. Discuss the principles in designing qualitative research questions and hypothesis.
16. Discuss the essential steps in designing quantitative methods for a research project.

Course Content

1. Selection of a Research Approach
 - a. Determining your research approach
 - b. Identifying a worldview with which you are most comfortable
 - c. Defining the three types of research approaches
 - d. Using a quantitative, qualitative, and mix methods designs and methods
2. Review of the Literature
 - a. Assessing whether your topic is researchable
 - b. Using steps in conducting a literature review
 - c. Using computerized databases available for reviewing the literature
 - d. Developing a priority for types of literature to review
 - e. Writing a good abstract for a research study
 - f. Using important elements of a style manual
 - g. Defining terms
 - h. Employing a model for writing a literature review
3. The Use of Theory
 - a. Testing casual claims in quantitative research
 - b. Identifying variables in quantitative study
 - c. Defining the nature of a quantitative theory
 - d. Using a script to write a theoretical perspective into a quantitative study
 - e. Considering the types of theories used in qualitative research
 - f. Placing theories in a qualitative study
 - g. Placing a theoretical lens into a mixed method study
4. Writing Strategies and Ethical Considerations
 - a. Assessing the structure of a proposal for qualitative, quantitative, and mixed methods studies
 - b. Using writing strategies for drafting a proposal
 - c. Developing a habit of writing
 - d. Constructing umbrella thoughts, big thoughts, little thoughts, and attention thoughts in writing
 - e. Developing writing consistency through the hook-and-eye technique
 - f. Using principles of writing good prose
 - g. Anticipating ethical issues in many phases of the research process
5. The Introduction
 - a. Writing an abstract for a study
 - b. Exploring differences among quantitative, qualitative, and mixed methods introductions
 - c. Using the deficiency model for writing an introduction
 - d. Designing a good narrative hook
 - e. Writing about the research problem
 - f. Summarizing the literature about a research problem
 - g. Pointing out deficiencies in past literature
 - h. Considering audiences that may profit from your study
6. Research Questions and Hypotheses
 - a. Writing a script for a qualitative central question
 - b. Considering how this script would change depending on the qualitative design
 - c. Writing a script for quantitative research questions and hypothesis
 - d. Considering how this script would change depending on the quantitative design and the different types of hypotheses
 - e. Using a model for descriptive and inferential quantitative questions and hypothesis
 - f. Writing scripts for different forms of research questions for a mixed method study
7. Quantitative Methods
 - a. Using a checklist for survey research two form topic selections of a survey procedure
 - b. Employing steps in analyzing data for a survey procedure
 - c. Writing a complete survey methods discussion
 - d. Using a checklist for experimental research to form sections from an experimental procedure
 - e. Identifying the type of experimental procedure that best fits your proposal study
 - f. Drawing a diagram of experimental procedures
 - g. Identifying the potential internal validity and external validity threats to your proposed study
8. Qualitative Methods
 - a. Using a checklist for qualitative research to form topic selections of a procedure
 - b. Stating the basic characteristics of qualitative research

- c. Determining how reflexivity will be included in a proposed study
 - d. Weighing the different types of data collected in qualitative research
 - e. Employing steps in the qualitative data analysis process
 - f. Establishing validity in qualitative research
9. Mixed Methods Procedures
- a. Stating a definition and the characteristics of mixed methods research
 - b. Using a convergent mixed methods design
 - c. Using an explanatory sequential mixed methods design
 - d. Employing an exploratory sequential mixed methods design
 - e. Using one of the complex mixed methods designs
 - f. Choosing which design is best for a mixed methods study

Methods of Instruction

Methods of Instruction

Types	Examples of learning activities
Lecture	Instructor-led lecture on the subject.
Group Work	Instructor-led group work.

Online Adaptation

Types	Examples of learning activities
Lecture	Students will watch recorded lectures.
Group Work	Students will be assigned to a group and discuss assigned topics.

Instructor-Initiated Online Contact Types

Announcements/Bulletin Boards
 Chat Rooms
 Discussion Boards
 E-mail Communication
 Telephone Conversations
 Video or Teleconferencing

Student-Initiated Online Contact Types

Discussions
 Group Work

Course design is accessible

Yes

Methods of Evaluation

Methods of Evaluation

Types	Examples of classroom assessments
Essays/Papers	Essays assigned from the reading.
Homework	Weekly assigned readings from provided articles, journals, and other online resources.
Projects	Projects as assigned.

Assignments

Reading Assignments

Reading assignments will consist of reading and synthesizing peer reviewed articles, textbooks, and publications. Readings will be focused on research methodology and quantitative principles in health care. Number of pages will vary but at minimum will require 250- 500 pages of reading and analysis.

Writing Assignments

1. Writing assignments will consist of synthesis and evaluation of outcomes and findings in case study analysis, and reflection/evaluation in relation to skills, abilities, and critical thinking in health care research design.
2. Case studies focusing on an assigned topic given weekly by instructor.
3. Summary reflection/evaluation essays focusing on weekly reading assignments.

4. Two comprehensive case study writing assignments will be required over the duration of the course.

SECTION F - Textbooks and Instructional Materials

Material Type

Textbook

Author

Paul Leedy; Jeanne Ormrod

Title

Practical Research: Planning and Design

Edition/Version

12th Edition

Publisher

Pearson

Year

2020

ISBN #

9780134802763

SECTION G - Diversity, Equity and Inclusivity

How does your course and/or course outline of record reflect strategies for accommodating and engaging diverse student populations, advancing equitable outcomes, and fostering inclusion for all students?

N/A

Course Codes (Admin Only)

CB00 State ID

CCC000652966

CB10 Cooperative Work Experience Status

N - Is Not Part of a Cooperative Work Experience Education Program

CB11 Course Classification Status

Y - Credit Course

CB13 Special Class Status

N - The Course is Not an Approved Special Class

CB23 Funding Agency Category

Y - Not Applicable (Funding Not Used)

CB24 Program Course Status

Program Applicable

Allow Pass/No Pass

Yes

Only Pass/No Pass

No