

RESP-290B: COMPUTER SIMULATIONS IN RESPIRATORY CARE

Effective Term

Fall 2026

CC Approval

12/05/2025

AS Approval

12/11/2025

BOT Approval

12/18/2025

SECTION A - Course Data Elements

Send Workflow to Initiator

No

CB04 Credit Status

Credit - Degree Applicable

Discipline
Minimum Qualifications
And/Or

Respiratory Technologies (Any Degree and Professional Experience)

Subject Code

RESP - Respiratory Care

Course Number

290B

Department

Respiratory Therapy

Division

Health Occupations (HEOC)

Full Course Title

Computer Simulations in Respiratory Care

Short Title

Comp Simulations in RC

CB03 TOP Code

1210.00 - *Respiratory Care/Therapy

CIP Code

51.0908

CB08 Basic Skills Status

NBS - Not Basic Skills

CB09 SAM Code

A - Apprenticeship

Rationale

Fix Dangling hours.

SECTION B - Course Description

Catalog Course Description

This course prepares students for the National Board for Respiratory Care's Registry Examination, which requires specialized knowledge in solving patient management problems in a branching logic format. Students will practice with web-based clinical simulations, identify their strengths and weaknesses, and develop a study plan to prepare for this exam.

SECTION C - Conditions on Enrollment

Open Entry/Open Exit

No

Repeatability

Not Repeatable

Grading Options

Letter Grade Only

Allow Audit

Yes

Requisites

Corequisite(s)

Concurrent enrollment in RESP-290.

Requisite Justification

Requisite Description

Course in a Sequence

Subject

RESP

Course

290

Level of Scrutiny

Content Review

Upon entering this course, students should be able to:

Concurrent enrollment in RESP-290.

SECTION D - Course Standards

Is this course variable unit?

No

Units

1.00

Activity Hours

36

Outside of Class Hours

18

Total Contact Hours

36

Total Student Hours

54

Distance Education Approval

Is this course offered through Distance Education?

No

SECTION E - Course Content

Student Learning Outcomes

Upon satisfactory completion of the course, students will be able to:	
1.	Students will perform a minimum of 10 computer-based clinical simulations, identify their strengths and weaknesses based on the results, and develop a plan for improvement.
2.	Students will take two secure self-assessment exams (the Therapist Multiple Choice Exam and the Clinical Simulation Exam), identify their strengths and weaknesses, and develop a plan for improvement.

Course Objectives

Upon satisfactory completion of the course, students will be able to:	
1.	Differentiate the functions of the Respiratory Care Board (RCB), the National Board for Respiratory Care (NBRC), American Association for Respiratory Care (AARC), California Society for Respiratory Care (CSRC), and the Committee on Accreditation for Respiratory Care (CoARC).
2.	Access and analyze information from the professional websites regarding Respiratory Care licensure and credentialing.
3.	Compare and contrast the two primary Respiratory Care examinations; content, format, number of items, passing scores, etc.
4.	Research the optional examinations and the value in obtaining these credentials by interviewing practitioners and department managers.
5.	Analyze one's strengths and weaknesses by researching the results of the computer lab simulations and self-assessment examinations.
6.	Develop a study plan for each of the two primary examinations, including areas of focus and a specific timeline.

Course Content

1. Respiratory Care Organizations
 - a. Respiratory Care Board (RCB)
 - b. National Board for Respiratory Care (NBRC)
 - c. American Association for Respiratory Care (AARC)
 - d. California Society for Respiratory Care (CSRC)
 - e. Committee on Accreditation for Respiratory Care (CoARC)
2. Required and Recommended Examinations in the Respiratory Care Profession
 - a. Therapist Multiple Choice (TMC)
 - b. Clinical Simulation Exam (CSE)
 - c. Other credentials available for Respiratory Care Practitioners
 - d. Value of obtaining optional professional credentials
3. Self-Assessment Examinations
 - a. Available on National Board for Respiratory Care (NBRC) website
 - b. Napa Valley College's computer lab simulations
4. TMC and CSE examination detailed content outlines
 - a. Self-evaluation
 - b. Personalized study plan – topics and timeline

Methods of Instruction

Methods of Instruction

Types	Examples of learning activities
Activity	Group activities - Students collaborate to solve simulated patient problems.
Discussion	Students discuss correct/incorrect answers on sample exams.
Lab	Students perform simulated respiratory therapy techniques.

Methods of Evaluation

Methods of Evaluation

Types	Examples of classroom assessments
Quizzes	Examples: Compare and contrast the three primary examinations. Include the following: Describe the exams' format. Discuss the three "difficulty" levels. Explain three strategies for taking the branching logic exam.
Simulation	Students will take 35 Clinical Simulations complete them with a 75% or greater score.

Assignments

Reading Assignments

Students will complete two chapters of their textbook per week and will take the pretests and posttests in each chapter.

Examples:

1. Read chapters 1 and 2 in your textbook, take the pre- and post-test for each chapter, and identify areas of strength and weakness.
2. Visit the NBRC website (nbrc.org) and answer the following questions:
 - a. How many years after graduation do you have to take the RRT exam? (1 point)
 - b. If someone does not take the RRT exam within the time limit, what must they do to regain their eligibility? (2 points)
 - c. How many questions on the TMC exam? How many "pretest" questions are included? (2 points)
 - d. How many clinical simulations on the CSE? How many "pretest" simulations are included? (2 points)

Writing Assignments

1. Students will purchase and complete the self-assessment exams and pass with a 75% or greater.
2. Students will access the free RRT exams on the National Board for Respiratory Care (NBRC) website and pass with a 75% or greater.

SECTION F - Textbooks and Instructional Materials

Material Type

Textbook

Author

Sills, James R.

Title

The Comprehensive Respiratory Therapist Exam Review

Edition/Version

6th

Publisher

Mosby Elsevier

Year

2016

Material Type

Other required materials/supplies

Description

1. Secure self-assessment exam - Therapist Multiple Choice (TMC)
 2. Secure self-assessment exam - Clinical Simulation Exam (CSE)
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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?

The course outline of record reflects inclusive practices by detailing flexible instruction, diverse course materials, equitable assessments, and supportive policies that ensure accessibility and engagement for all students.

Course Codes (Admin Only)

CB00 State ID

CCC000456224

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

No

Only Pass/No Pass

No