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Number: 97-289  
Submission Date: App. 2/17/98  
Action-Date: Senate app. 3/3/98

CURRICULUM PROPOSAL COVER SHEET  
University-Wide Undergraduate Curriculum Committee

I. CONTACT

Contact Person Rebecca L. Hartman, EdD, Coordinator Phone 357-3257  
Department Nursing/Allied Health Professions

II. PROPOSAL TYPE (Check All Appropriate Lines)

COURSE RT 331 Intro to Vent Mgt  
Suggested 20 character title

New Course\* \_\_\_\_\_  
Course Number and Full Title

Course Revision \_\_\_\_\_  
Course Number and Full Title

Liberal Studies Approval+ \_\_\_\_\_  
for new or existing course Course Number and Full Title

Course Deletion RT 331 Introduction to Ventilator Management  
Course Number and Full Title

Number and/or Title Change \_\_\_\_\_  
Old Number and/or Full Old Title

\_\_\_\_\_  
New Number and/or Full New Title

Course or Catalog Description Change \_\_\_\_\_  
Course Number and Full Title

PROGRAM:  Major  Minor  Track

New Program\* \_\_\_\_\_  
Program Name

Program Revision\* Respiratory Care  
Program Name

Program Deletion\* \_\_\_\_\_  
Program Name

Title Change \_\_\_\_\_  
Old Program Name

\_\_\_\_\_  
New Program Name

III. Approvals (signatures and date)

Rebecca L. Hartman  
Department Curriculum Committee

[Signature] 4-19-97  
Department Chair

Mary E. Swisher 5/7/97  
College Curriculum Committee

Harold C. Wingard  
College Dean

+ Director of Liberal Studies (where applicable)

\* Provost (where applicable)

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RT 331

**Part I. Curriculum Proposal Cover Sheet****Part II. Description of the Curriculum Change****1. Name of the course to be deleted.**

RT 331 Introduction to Ventilator Management  
1 credit  
1 lecture hour  
0 lab hours  
(1c-01-1sh)

**2. Justification/Rationale for Deletion of RT 331.**

Clinical sites for respiratory care students, that care for ventilator dependent patients, no longer replace the ventilator tubing on a daily basis. This change in policy is supported by studies that have been conducted and published by the Center for Disease Control (CDC) in conjunction with infection control standards. These studies, in conjunction with health care budgetary constraints, have significantly contributed to policy changes regarding the decreased frequency of ventilator tubing change.

Although it is essential that the respiratory care student be proficient when performing the function of changing ventilator tubing, much less emphasis and time is devoted to this task in the student's respiratory clinical environment. A separate course is, therefore, not warranted for this topic.

**3. Affect on Existing Courses & Students Enrolled in Program.**

Introductory theory, principles and techniques of ventilator management can be adequately covered in the equipment related, proposed, revised course, RT 329 Respiratory Care Equipment, without compromising the course or the student's proficiency of this competency. Semester hours are available in RT 329 Respiratory Care Equipment to adequately cover the additional topic of ventilator management due to a reduction/or elimination of specific content that no longer warrants the hours previously assigned. This is a result of advances in technology that have warranted the replacement and/or elimination of older equipment.

## SYLLABUS

- COURSE:** Introduction to Ventilator Management
- DESCRIPTION:** This course is designed to establish competence in changing ventilator circuitry in the laboratory situation. Introductory principles, techniques and theory of ventilator application will also be explored.
- INSTRUCTOR:** Karen E. Blair, BS, RRT, CPFT
- LECTURES:** Lectures are scheduled on Tuesdays from 3:00 - 4:30 p.m. during the final ten weeks of the term.
- LABS:** Laboratory assignments will be made during the same hours as other School of Respiratory Care Labs.
- EVALUATION:** Performance Evaluation 67 percent  
Written Exam 33 percent
- All students must successfully pass the performance exam in order to pass the course. Failure of the performance exam on the first attempt requires repeating all components in a second evaluation. Students failing on the first attempt can receive no higher than a "C" grade in the course.

## SCHEDULE

WEEK	DATE	LECTURE	LAB	READING
6	Oct. 1	Introduction, Basic Principles of Mechanical Ventilation	-----	Shapiro, pp.31,36-38, 74,76-77 331-332,336- 340,366-369, 379-387 McPherson, pp.8, 24
7	Oct. 15	Bear Ventilator Control Panel & Circuit	Oct. 16	Bear Handout McPherson, pp. 491 507
8	Oct. 22	Bear Tubing Change	Oct. 23	Clinical Practice Guidelines pp. 48-51, 109-110
9	Oct. 29	Bear Trouble- Shooting	Oct. 30	Handout
10	Nov. 5	7200 Tubing Change	*Nov. 6	
11	Nov. 12	Written Exam	*Nov. 13	

\* Weeks 10 & 11:

Practice Labs

\*\* Weeks 12-14:

Performance Evaluations

\*\*\*All lectures will be held in room 614 for the entire semester. The School of Respiratory Care will post any classroom changes.

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CURRICULUM PROPOSAL COVER SHEET  
University-Wide Undergraduate Curriculum Committee

I. CONTACT

Contact Person Rebecca L. Hartman, EdD, Coordinator Phone 357-3257  
Department Nursing/Allied Health Professions

II. PROPOSAL TYPE (Check All Appropriate Lines)

COURSE RT 427 Appl Pul Physiology  
Suggested 20 character title

New Course\* \_\_\_\_\_  
Course Number and Full Title

Course Revision \_\_\_\_\_  
Course Number and Full Title

Liberal Studies Approval + \_\_\_\_\_  
for new or existing course Course Number and Full Title

Course Deletion RT 427 Applied Pulmonary Physiology  
Course Number and Full Title

Number and/or Title Change \_\_\_\_\_  
Old Number and/or Full Old Title

\_\_\_\_\_ New Number and/or Full New Title

Course or Catalog Description Change \_\_\_\_\_  
Course Number and Full Title

PROGRAM:  Major  Minor  Track

New Program\* \_\_\_\_\_  
Program Name

Program Revision\* Respiratory Care  
Program Name

Program Deletion\* \_\_\_\_\_  
Program Name

Title Change \_\_\_\_\_  
Old Program Name

\_\_\_\_\_ New Program Name

III. Approvals (signatures and date)

Rebecca L. Hartman  
Department Curriculum Committee

Kuzma 4-10-97  
Department Chair

Mary E. Sweeney 5/7/97  
College Curriculum Committee

David C. Wingard  
College Dean

+Director of Liberal Studies (where applicable)

\*Provost (where applicable)

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RT 427

**Part I. Curriculum Proposal Cover Sheet****Part II. Description of the Curriculum Change****1. Name of the course to be deleted.**

RT 427 Applied Pulmonary Physiology  
3 credit  
3 lecture hour  
0 lab hours  
(3c-01-3sh)

**2. Justification/Rationale for Deletion of RT 427.**

New course proposed RT 425 Clinical Case Studies includes content from RT 427 making RT 427 redundant.

**3. Affect on Existing Courses & Students Enrolled in Program.**

Deletion of RT 427 will not affect existing courses. It is a senior level core course but will be replaced with new proposed course RT 425 Clinical Case Studies. Students currently enrolled will not be affected since change will take place with new class.

**Part III. Letters of Support**

No letters are necessary.

## APPLIED PULMONARY PHYSIOLOGY

### COURSE DESCRIPTION

Various aspects of pulmonary physiology will be explored and applied to acid-base and blood gas analysis and interpretation. These will include physical concepts related to pulmonary gas exchange, quantitative and qualitative O<sub>2</sub> transport, fluid-electrolyte and acid base homeostasis and ventilation perfusion matching. Total Cardiopulmonary homeostasis and its regulation will be emphasized. Arterial Blood Gases will be studied in detail concerning techniques, interpretations, standardization, application and therapeutic intervention.

### COURSE OBJECTIVE

It is ultimately hoped that the student will develop and reinforce his knowledge of the physiology underlying gas exchange and A-B balance. Furthermore, the student will possess an awareness of the complex interrelationships which exist and apply his knowledge to the clinical diagnosis and appropriate therapeutic intervention of pathophysiological alterations in these areas. This knowledge, upon being integrated into a comprehensive ABG analysis technique will make the student more effective in clinical care of C-P disease.

### COURSE RATIONALE

The effective administration of Respiratory Therapy requires an extensive knowledge of A-B balance and blood gas exchange. This is a complex subject requiring basic knowledge and integration of physical laws as well as respiratory, cardiovascular and renal physiology. This information can best be understood by reviewing conceptual physiology and applying it to examples and the formulation of logical thought processes which emphasize key concepts.

### SYLLABUS

COURSE: Applied Pulmonary Physiology

INSTRUCTOR: William J. MALLEY, MS, RRT

CREDIT: 4 TERM: Spring, 1986

LECTURE: Tuesday 12:00 p.m. - 2:00 p.m.  
Thursday 10:00 - 12:00 p.m.

EVALUATION:	4 Majors Exams	75%	
	Cases/Questions	20%	
	Discussion	5%	
		100%	

## OUTLINE

1. Basics of Blood Gases
2. Technical Error in ABG's
3. Accuracy Check of ABG's
4. Overview of Oxygenation
5. External Respiration
6. Assessment and Treatment of External Respiration
7. O<sub>2</sub> Transport
8. Assessment and Treatment of External Respiration
- 9 O<sub>2</sub> Transport
10. Recognition of Mixed Disturbances
11. Causes of Acid-Base Disturbances
12. Renal Function
13. Renal NaReabsorption
14. Electrolyte Balance
15. Treatment of Acid-Base Disturbances
16. CO<sub>2</sub> Transport
17. Metabolic Indices