I. Catalog Description

RT 430 Pulmonary Function Studies (3c-01-3sh)

Introduces the student to the advanced diagnostic studies and equipment necessary for diagnosing and quantitating the various lung diseases. Included in this segment are advances in invasive studies as well as the rehabilitation evaluation tools. Troubleshooting becomes a part of this course as the student prepares for the operation of the varied equipment and patient instruction.

I. Catalog Description

RT 430 Pulmonary Function Studies

3 credits
3 lecture hours
0 lab hours
(3c-01-3sh)

Prerequisites: RT 337

Introduces the student to the advanced diagnostic studies and equipment necessary for diagnosing and quantifying the various lung diseases. Included are advances in invasive studies and rehabilitation evaluation tools.

II. Course Objectives

Upon completion of the course the student will be able to:

1. Identify various instrumentation used in the diagnosis of lung disease

2. Perform diagnostic studies for the assessment of pulmonary disease and quantify the extent of the disease while supporting the reliability of each test.

3. Assist the physician in performance of flexible bronchoscopies,

11. Recommend, complete and interpret diagnostic studies for pulmonary functions.

[redacted]

A.	Gas analyzers	3 lecture hours
B.	Flow Volume Loops	1.5 lecture hours
C.	Bronchoscopy, Flexible vs Laser	3 lecture hours
D.	[redacted]	[redacted]

[redacted]

F.	Pediatric Studies	1.5 lecture hours
G.	Gas Density Studies for Early Airway Disease	3 lecture hours
H.	Diagnostic Compliance and Airway Resistance	3 lecture hours
I.	Bronchoprovocations Studies	2 lecture hours
J.	Sleep Disorders	6 lecture hours

[redacted]

L.	Calorimetry	1.5 lecture hours
M.	Interpretation/ Case Studies	3 lecture hours
N.	Exams	3.5 lecture hours
	TOTAL HOURS	42 hours

VII. Bibliography

Change, J.T., Moran, M.B., Cugell, D.W., Webster, J.R., Jr. (1995).

108(3), 736-740.

Chatburn, C.L. (1996). Evaluation of instrument error and method agreement. Journal of the American Association of Nurse Anesthetists, 64(3), 261-268.

Clausen, J. (1985). Pulmonary Function Testing Guidelines and Controversies. Orlando, FL: Grune and Stratton, Inc.

Collard, P., Wilputte, J.Y., Aubert, G., Rodenstein, D.O., Frans, A.

Zibrack, J., O'Donnell, C., Marton, K. (1990). Indications for

pulmonary function testing. Annals of Internal Medicine, 112, 763-771.

2. Summary of proposed revisions:

Course credit change from 2-3; course objectives revised to reflect course content changes and Joint Review committee for Respiratory Education

3. Justification/Rationale for the revision.

Change in health care have increased the demand for the respiratory therapist to perform more diagnostic studies, interpret data and recommend and implement therapy for those persons with pulmonary diseases. In the last few years a trend for respiratory therapist to study sleep disorders and calorimetry studies has increased greatly and by including those areas into the current curriculum the graduate becomes more marketable. Expanding the role of respiratory therapist by adding more sophisticated diagnostics, improves the cohesiveness of diagnosis to therapy with greater proficiency. The credit increase from 2 to 3 will allow the time to include lecture content resulting from these changes.

III. Letters of Support

No letters are needed.

C. Services

All students enrolled in the program shall have access to the full range of services provided by the sponsoring institution(s).

GUIDELINE:
All students in respiratory care programs should be regularly matriculated in the educational

GUIDELINE:
Practitioner competencies should provide the basis for deriving the objectives and activities constituting the program's curriculum. Both the competencies stated and the curriculum objectives derived should be consistent with the level of practitioner preparation delineated in the program's goal and standard statements, and

General patient care
Humidity therapy

GUIDELINE:
The choice of instructional strategies should be

Pediatrics and perinatology

2. Multiple Program Designs

Time-course and depth of [illegible]

RT 430
2 credits

1996 Fall

Self Study and student responsibility of the following topics:

	Review of Pulmonary Mechanics:	Text: pages: 106-117 pages: 120-122 pages: 127-130 Ruppel: pages: 43-50 MVV only: 56-59
	Review of equipment:	Text: pages: 2-22 pages: 26-32 Ruppel: pages:200-218
***	Quality Control and Assurance	Ruppel: pages:287-296
	Pt. History collection/reports	Text: pages: 297-308 Ruppel: pages:157-164
TOPIC 1 Class 1&2	Review ABG electrodes PO2 (Clark) PCO2 (Severinghaus) pH (Sanz) Quality Control a. Types	Malley pages: 37-54 Text: pages 50-66 Ruppel:pages:305-313

[redacted]

handouts
Ruppel:pages: 57-60

[redacted]

a. flexible
b. rigid

Handouts and notes

Class 8 MIDTERM EXAM

Topics 2,3,4,and 5 more heavily weighted on 4 and 5.

[redacted]

* Any external work assignments not completed and turned in is an automatic 0 and added to the quiz grades.

[redacted]

* A make up exam, if granted by the instructor, is an automatic 5 % decrease in the possible total points on the exam.

* An unexcused exam is an automatic 0.

* Class participation is counted into quiz grades with a total point score of 10 points.

Read each topic assignment before class to enhance the class work each week. Surprise quizzes are a favorite of this instructor.

Midterm exam 25%

[redacted]

difference if any appears.

The topics are assigned as followed:
Those with the last name beginning with:
A - D will research topic 1
E - G will research topic 3
H - L will research topic 4
M - R will research topic 2
S - U will research topic 6
V - Z will research topic 5