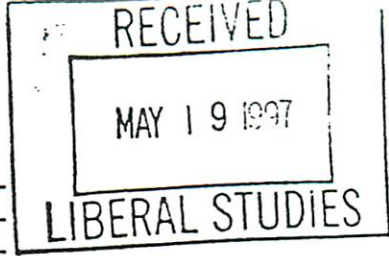


LSC Use Only
Number: _____
Submission Date: _____
Action-Date: _____



UWUCC USE Only
Number: 97-28c
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 425 Clin Case Studies
Suggested 20 character title

New Course * RT 425 Clinical Case Studies
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 _____
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

Sumari 4-10-97
Department Chair

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

David E. Wingerd
College Dean

+Director of Liberal Studies (where applicable)

*Provost (where applicable)



I. Catalog Description**RT 425 Clinical Case Studies****(3c-01-3sh)****Prerequisites: None**

This course is designed to increase the working knowledge of disease states commonly experienced by patients in the critical care setting. Emphasis is placed on recognition and treatment of various disease states. Methods for evaluation and treatment of clinical oxygenation disturbances and acid-base disorders will be explored. Clinical simulations, case studies, and patient management problems reviewed and discussed. Emphasis is on appropriate information-gathering and decision-making techniques.

I. Catalog Description

RT 425 Clinical Case Studies

3 credit
3 lecture hours
0 lab hours
(3c-0l-3sh)

Prerequisites: None

This course is designed to increase the working knowledge of disease states commonly experienced by patients in the critical care setting. Emphasis is placed on recognition and treatment of various disease states. Methods for evaluation and treatment of clinical oxygenation disturbances and acid-base disorders will be explored. Clinical simulations, case studies, and patient management problems reviewed and discussed. Emphasis is on appropriate information-gathering and decision-making techniques.

II. Course Objectives

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

1. Describe appropriate treatment of diseases/conditions often encountered in the critical care setting.
2. Describe common signs and symptoms associated with life-threatening diseases.
3. Analyze the methods used to evaluate disease progression or severity.
4. Identify and evaluate effects of changes in cardiac output on arterial oxygenation.
5. Recognize the indices used to evaluate oxygenation disturbances in the lungs or tissues.
6. Relate basic acid-base and electrolyte principles to clinical blood gases and respiratory care.
7. Apply a differential acid-base diagnosis and treatment plan when given blood gases, electrolytes, blood laboratory values, oxygenation indices and hemodynamic parameters.

III. Course Outline

- | | |
|---|-----------------|
| A. Cardiac Disease/Post Open Heart Surgery | 4 lecture hours |
| B. Trauma - assessment and Treatment | 2 lecture hours |
| C. Adult Respiratory Distress Syndrome/Sepsis | 2 lecture hours |
| D. Neuromuscular Diseases | 2 lecture hours |
| E. Carbon Monoxide Poisoning and Sleep Apnea | 2 lecture hours |

F. Effects of Cardiac Output on Arterial Oxygenation	2 lecture hours
G. Assessment and Treatment of Shunting and Hypoxemia	4 lecture hours
H. Differential Diagnosis of Hypoxemia	2 lecture hours
I. Introduction to Anemia and Tissue Hypoxia	2 lecture hours
J. Oxygen Uptake and Utilization	2 lecture hours
K. Clinical Indicators of Hypoxia	2 lecture hours
L. Respiratory Acid-Base Disorders	2 lecture hours
M. Metabolic Alkalosis	4 lecture hours
N. Metabolic Acidosis	4 lecture hours
O. Mixed Acid-Base Disturbances and Treatment	2 lecture hours
P. Overview of Electrolytes and ABGs/Case Studies	2 lecture hours
Exams	2 hours
TOTAL HOURS	42 hours

IV. Evaluation Methods

The final grade for the course will be determined as follows:

	<u>% of course grade</u>
Exam I	25%
Exam II	25%
Quizzes	25%
Comprehensive Final Exam	25%

Evaluation will be based on the following grading scale:

A	=	90 - 100%
B	=	80 - 89%
C	=	70 - 79%
D	=	65 - 69%
F	=	< 65%

V. Required textbooks, supplemental books and readings

DesJardin. (1996). Clinical Manifestations of Respiratory Disease. 2nd edition. Year Book Publishers, Inc. Littleton, MA.

Farzan. (1992). A Concise Handbook of Respiratory Diseases. 3rd edition. Appleton & Lange, Norwalk, CT.

Malley, W.J. (1990). Clinical Blood Gases: Application and Noninvasive Alternatives. W.B. Saunders, Philadelphia, PA.

Articles and handouts assigned in class.

VI. Special resource requirements

None.

VII. Bibliography

Deitch, E.A. (1990). The management of Burns. The New England Journal of Medicine, 323:1249-53.

Drachman, D.B. (1994). Myasthenia gravis. The New England Journal of Medicine, 330:1797-1810.

Kelly, B.J. (1991). The diagnosis and management of neuromuscular disease causing respiratory failure. Chest, 99:1485-94.

Kollef, M.H. (1995). The acute respiratory distress syndrome. The New England Journal of Medicine, 332:27-37.

Leone, B.J. (1992). Anemia, hemodilution, and oxygen delivery. Anesthesia and Analgesia, 75:651-653.

Mathewson, H.S. (1991). Breadth and scope of the adult respiratory distress syndrome. Respiratory Management, 21:98.

McGee, W.T. (1988). Clinical importance of tissue oxygenation and use of the mixed venous blood. ResMedica, 4:15-24.

Naruns, E.B. (1989). Clinical implications of intraoperative continuous mixed venous oxygen saturation monitoring. Journal of the American Association of Nurse Anesthetists, 57:45-52.

Shellenbarger, T. (1995). ALS demands diligent nursing care. RN, 30-36.

Stoller, J.K. (1991). Unconventional strategies for ventilatory management of ARDS. Respiratory Management, 21:102-105.

White, K.M. (1985). The Physiological basis for continuous mixed venous oxygen saturation monitoring. Heart and Lung, 19:548-551.

Yancone-Morton, L.A. (1995). Inotropic agents and nitrates. RN, 22-29.

Section A: Details of the Course

- A1 How does this course fit into the programs of the department? For what students is the course designed? (majors, students in other majors, liberal studies).

This course is part of required 62 credits of Respiratory Care major. It is designed for Respiratory Care majors only.

- A2 Does this course require changes in the content of existing courses or requirements for a program? If catalog descriptions of other courses or department programs must be changed as a result of the adoption of this course, please submit as separate proposals all other changes in courses and/or program requirements.

It is proposed that RT 427 Applied Pulmonary Physiology be deleted. The four credits from this course will be distributed as follows: One credit added to RT 430 Pulmonary Function Studies and creation of a new three credit course Clinical Case Studies. All course change proposals are included.

- A3 Has this course ever been offered at IUP as a trial basis (e.g. as a special topic). If so, explain the details of the offering.

No. This course has never been offered on a trial basis.

- A4 Is this course to be a dual-level course? If so, what is the approval status at the graduate level?

This course is not a dual-level course.

- A5 If this course may be taken for variable credit, what criteria will be used to relate the credits to the learning experience of each student? Who will make this determination and by what procedures?

This course is not available for variable credit.

- A6 Do other higher education institutions currently offer this course? If so, please list examples.

No other higher education institutions currently offer this course.

- A7 Is the content, or are the skills, of the proposed course recommended or required by a professional society, accrediting authority, law or other external agency? If so, please provide documentation. Explain why this content or these skills cannot be incorporated into an existing course.

This course contains content recommended by the Joint Review Committee for Respiratory Therapy Education (JRCRTE) as found in the Instructional Plan, part V, A3 in the Essentials for Accreditation, The Joint Review Committee for Respiratory Education, 1986. RT 425 is a core course for all Respiratory Therapy students.

Section B: Interdisciplinary Implications

- B1 Will this course be taught by one instructor or will there be team teaching? If the latter, explain the teaching plan and its rationale.

This course will be taught by one instructor.

- B2 What is the relationship between the content of this course and the content of courses offered by other departments? Summarize your discussions (with other departments) concerning the proposed changes and indicate how any conflicts have been resolved. Please attach relevant memoranda from these departments which clarify their attitudes toward the proposed change(s).

This course is not offered or in conflict with other department.

- B3 Will seats in this course be made available to students in the School of Continuing Education?

No seats will be available for continuing education.

Section C: Implementation

- C1 Are faculty resources adequate? If you are not requesting or have not been authorized to hire additional faculty, demonstrate how course will fit into the schedules of current faculty. What will be taught less frequently or in fewer sections to make this possible?

Resources are adequate. Instructors at Western Pennsylvania Hospital School of Respiratory Care are contracted to teach 62 credits in major.

- C2 What other resources will be needed to teach this course and how adequate are the current resources? If not adequate, what plans exist for achieving adequacy? Reply in terms of the following:

Space - is adequate.

Equipment - is adequate.

Laboratory Supplies and other Consumable Goods - are adequate.

Library Materials - are reviewed and updated annually.

Travel Funds - not applicable.

- C3 Are any of the resources for this course funded by a grant? If so, what provisions have been made to continue support for this course once the grant has expired? (Attach letters of support from Dean, Provost, etc.)

This course is not funded by any grants.

- C4 How frequently do you expect this course to be offered? Is this course particularly designed for or restricted to certain seasonal semesters?

This course is offered every fall semester to senior students only.

- C5 How many sections of this course do you anticipate offering in any single semester?

One section per year will be offered.

- C6 How many students do you plan to accommodate in a section of this course? Is this planned number limited by the availability of any resources? Explain.

The maximum IUP enrollment per year in the Respiratory Care at Western Pennsylvania Hospital is 30 by mutual agreement.

- C7 Does any professional society recommend enrollment limits or parameters for a course of this nature? If they do, please quote from the appropriate documents.

There are no limits or parameters for enrollment into this course.

Section D: Miscellaneous

Include any additional information valuable to those reviewing this new course proposal.

No additional information is necessary

The Joint Review Committee for Respiratory Education, 1986

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 institution which sponsors or participates in the program. Therefore, students should be eligible to receive all services offered by the educational institution.

D. Number

The number of students enrolled shall be commensurate with both the goals and standards of the program and the methods and requirements of its instructional plan. The number of students enrolled shall not exceed the resources of the program.

GUIDELINE:

The number of students enrolled in each class should be commensurate with effective learning and teaching practices, and should be consistent with appropriate student/instructor ratio for respiratory care education.

E. Clinical Experience

All clinical experiences shall be clinical in nature. The sponsor shall assure that each clinical assignment of the students is based upon the instructional plan of the program.

GUIDELINE:

All clinical activity assigned to students should be sequential, integrated with didactic and laboratory instruction, and consistent with the overall instructional plan of the program.

V. INSTRUCTIONAL PLAN

A. Curriculum

Instruction shall be based on a structured curriculum which clearly delineates the competencies to be developed and the methods whereby they are achieved.

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 encompass at least the knowledge, skill, and behavior expected of graduates at entry into the field.

These competencies should be achieved within the framework of appropriately sequenced basic science, clinical science, and respiratory care units, modules, and/or courses of instruction, accompanied or followed by a series of structured laboratory and clinical experiences.

The following units, modules, and/or courses of instruction should be included:

1. Basic Sciences

- Biology
- Cardiopulmonary anatomy and physiology
- Chemistry
- Computer science
- Human anatomy and physiology
- Mathematics
- Microbiology
- Pharmacology
- Physics
- Psychology

2. Clinical Sciences

- Cardiopulmonary diseases
- General medical and surgical specialties
- Pathology
- Pediatrics and perinatology

3. Respiratory Care Content Areas

- Aerosol therapy
- Airway management
- Assessment of patients' cardiopulmonary status
- Cardiopulmonary diagnostics and interpretation
- Cardiopulmonary monitoring and interpretation
- Cardiopulmonary rehabilitation and home care
- Cardiopulmonary resuscitation
- Chest physiotherapy
- Ethics of respiratory care and medical care
- Gas therapy

General patient care
 Humidity therapy
 Hyperinflation therapy
 Mechanical ventilation management
 Oxygen therapy
 Pediatrics and perinatology

The scope and depth of instruction provided in these areas and the corresponding level of performance expected of students should be consistent with the goals and standards of the program. Whatever level of practitioner preparation is stated, program personnel are expected to ensure that the objectives, content, and activities stated in the curriculum represent current concepts and advances in the practice of respiratory care.

In accordance with the mission, goals, and standards of the sponsoring institution(s) and program, other courses of study may be necessary or desirable. Programs are encouraged to incorporate general education, liberal arts and humanities studies within their curricula, and to provide opportunities for subsequent academic and career growth.

B. Length and Credit

The length of the curriculum, credits earned, and academic recognition awarded shall be consistent with the identified goals and standards of the program and its sponsoring institution(s).

GUIDELINE:

The length of time the students spend in the program may vary according to the program's goals and standards, the instructional plan, and the student's background. However, the program should be long enough to allow for an appropriate sequence of basic science, clinical science, and respiratory care content accompanied or followed by a series of structured laboratory and clinical experiences.

C. Implementation

1. Instructional Methods

Instructional methods shall be consistent with the goals and standards of the program, the educational needs of its students, and the competencies and objectives stated in its curriculum.

GUIDELINE:

The choice of instructional strategies should be appropriate to the instructional plan and to the learning needs of the students.

2. Multiple Program Designs

When more than one design is used to develop the same practitioner competencies, the program shall provide evidence that all such variations result in equivalent graduate outcomes.

GUIDELINE:

The programs should demonstrate that the instructional methodologies are equivalent, that the teaching mechanisms are valid, and the products of all such program designs are equally competent.

All educational programs should offer alternate instructional methodologies to meet special student needs.

3. Integration

The program shall ensure that instruction in the clinical setting is properly integrated and coordinated with the other components of the curriculum, and that each student receives adequate technical instruction and experience consistent with the goals and standards of the program.

GUIDELINE:

The program should assure that the clinical experience and instruction of students is meaningful and parallel in content and concept with the material presented in didactic and laboratory sessions. Schedules should be developed which provide for equivalent clinical experience for all students. The instructional and supervisory activities of all clinical instructors should be appropriate, effective, and coordinated.

4. Physician Input

Physician input shall be provided both in the administration of the program and instruction of students to ensure achievement of the program's stated goals and standards.