



North Central State College  
MASTER SYLLABUS  
2019-2020

- A. Academic Division: Health Sciences
- B. Discipline: Respiratory Care
- C. Course Number and Title: RESP1140 Pharmacology
- D. Course Coordinator: Sharon Conley, BSRT, RRT, RCP, CHT  
Assistant Dean Melinda Roepke, MSN, RN

Instructor Information:

- Name: [Click here to enter text.](#)
- Office Location: [Click here to enter text.](#)
- Office Hours: [Click here to enter text.](#)
- Phone Number: [Click here to enter text.](#)
- E-Mail Address [Click here to enter text.](#)

- E. Credit Hours: 2
- F. Prerequisites: MATH0074 (minimum grade of C- required) or COMPASS math score of  $\geq 61$  and algebra score of  $\geq 31$  or ACT Math score of  $\geq 21$   
Co-requisite(s): RESP1110, CHEM1030
- G. Syllabus Effective Date: Fall, 2019
- H. Textbook(s) Title:  
*Rau's Respiratory Therapy Pharmacology*
- Author: Douglas Gardenhire
  - Copyright Year: 2015
  - Edition: 9th
  - ISBN #: 978-0323-0-29968-8

References: Anatomy and Physiology Text and Selected Handouts

- I. Workbook(s) and/or Lab Manual: None
- J. Course Description: This course is a study of those drugs directly and indirectly affecting therapeutic management of cardiopulmonary patients and includes pharmacologic principles, administration of drugs, drug mixing calculations, and major cardiopulmonary drug therapy used by the respiratory therapy technician and therapist. Additional systemically administered drugs are discussed in reference to their effect on the cardiopulmonary system. In order to successfully complete the course the student will be required to pass a written examination (Drug Proficiency Exam) on Respiratory Care pharmacologic agents with a 77%.

K. College-Wide Learning Outcomes:

College-Wide Learning Outcome	Assessments - - How it is met & When it is met
Communication – Written	
Communication – Speech	
Intercultural Knowledge and Competence	
Critical Thinking	
Information Literacy	
Quantitative Literacy	

L. Course Outcomes and Assessment Methods:

Upon successful completion of this course, the student shall:

Outcomes	Assessments – How it is met & When it is met
1. Recommend modification in the respiratory care plan based on the patient’s response to respiratory care pharmacological agents a. The student will be able to identify adverse reactions of aerosolized respiratory care, (sympathomimetic, anticholinergic, mucolytic agents, corticosteroids, surface acting agents, anti-infective, and anti-asthmatic) agents	Case study, group discussion week 4-14. Quiz week 1-15 on specific drug category. Drug Proficiency Exam week 10, Final week 16
2. Modify treatment techniques independently based on patient’s responses to respiratory care pharmacological agents a. Calculate drug dosages from prepared -strength liquids, unit dose vials, tablets, capsules, and percentage strength solutions	Case study, group discussion week 4-14 Drug Calculation Homework assignment week 2
3. Determine the appropriateness of the prescribed respiratory care plan and recommend modifications when indicated a. Identify aerosol delivery modalities and describe factors affecting the administration of aerosolized medications b. Describe the pharmacodynamics, indication, precautions, contraindication, and drug compatibility of all aerosolized respiratory care pharmacological agents c. List indications and use of specialized inhaled gases, cardiovascular agents, and neuromuscular blocking agents d. Know the manufacturer’s recommended adult dosages of respiratory care pharmacological agents	Case study with group discussion, weeks 4-14 Quiz week 1-15 on specific drug category, Drug proficiency Exam week 10, final Exam week 16
4. Complete successfully (77%), a written examination documenting competency of all respiratory care pharmacological agents to include, adult dosage, trade name, generic name, adverse reactions, contraindications, precautions, drug compatibility and drug calculations	Drug Proficiency Exam week 10

M. Topical Timeline (Subject to Change):

- Week 1 – Introduction to Respiratory Care Pharmacology
- Week 2 – Calculating drug dosages
- Week 3 – Central and peripheral nervous system
- Week 4 – Adrenergic bronchodilators
- Week 5 – Anticholinergics and xanthines
- Week 6 – Mucus controlling agents and surfactants
- Week 7 – Corticosteroids
- Week 8 – Non-steroidal anti-asthmatics
- Week 9 – Anti-infective and anti-microbial agents
- Week 10- Drug proficiency

- Week 11 – Diuretics
- Week 12- Sedatives, analgesics, & paralytics
- Week 13 – Cardiovascular drugs, ACLS protocol agents
- Week 14 – Circulatory drugs, antihypertensives, antianginals, & antithrombolytics
- Week 15 – Vaccines
- Week 16 – Final Exam

N. Course Assignments:

1. Quizzes
2. Case studies
3. Drug calculation worksheet
4. Drug Proficiency Exam
5. Final Exam

O. Recommended Grading Scale:

NUMERIC	GRADE	POINTS	DEFINITION
93-100	A	4.00	Superior
90-92	A-	3.67	Superior
87-89	B+	3.33	Above Average
83-86	B	3.00	Above Average
80-82	B-	2.67	Above Average
77-79	C+	2.33	Average
73-76	C	2.00	Average
70-72	C-	1.67	Below Average
67-69	D+	1.33	Below Average
63-66	D	1.00	Below Average
60-62	D-	0.67	Poor
00-59	F	0.00	Failure

P. Grading and Testing Guidelines:

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Q. Examination Policy:

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R. Class Attendance and Homework Make-Up Policy:

[Click here to enter text.](#)

S. Classroom Expectations:

[Click here to enter text.](#)

T. College Procedures/Policies:

**Important information regarding College Procedures and Policies can be found on the [syllabus supplement](#) located at <https://sharept.ncstatecollege.edu/committees/1/curriculum/SiteAssets/SitePages/Home/SYLLABUS%20SUPPLEMENT.pdf>**

**The information can also be found** Choose an item.