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| **PROFESSOR:**  S. Karpel, MPA, RRT, AE-C | **PHONE NUMBER:**  239-985-8306 |
| **OFFICE LOCATION:**  A-119 | **E-MAIL:**  sindee.karpel@fsw.edu |
| **OFFICE HOURS:**  Mon. 7:30a-12p & 1p-4p; Tues. 7:30a-12p; Weds.& Thurs. By Appointment; Fri. 1p-2p | **SEMESTER:**  Fall 2017 |

1. **COURSE NUMBER AND TITLE, CATALOG DESCRIPTION, CREDITS:**

**RET 2234C RESPIRATORY THERAPEUTICS (6 CREDITS)**

Bronchial hygiene, lung expansion therapy as well as medical gas, humidity and aerosolization concepts are presented, in concert with advanced respiratory pharmacology. Clinical and laboratory experience affords the student the opportunity to observe and practice basic respiratory procedures and equipment and clinical critical thinking . The concepts fundamental to Mechanical Ventilation are introduced.

1. **PREREQUISITES FOR THIS COURSE:**

RET 1613C

**CO-REQUISITES FOR THIS COURSE:**

RET 2874L, RET 2254C

1. **GENERAL COURSE INFORMATION:** Topic Outline.

* Aerosol therapy
* Artificial airways
* Bronchial hygiene therapy
* Cardioversion
* Humidification devices
* Introduction to mechanical ventilation
* Lung expansion therapy
* Manual resuscitation devices
* Oxygen delivery devices
* Pulmonary rehabilitation
* Respiratory home care

1. **All courses at Florida SouthWestern State College contribute to the general education program by meeting one or more of the following general education competencies:**

**C**ommunicate clearly in a variety of modes and media.

**R**esearch and examine academic and non-academic information, resources, and evidence.

**E**valuate and utilize mathematical principles, technology, scientific and quantitative data.

**A**nalyze and create individual and collaborative works of art, literature, and performance.

**T**hink critically about questions to yield meaning and value.

**I**nvestigate and engage in the transdisciplinary applications of research, learning, and knowledge.

**V**isualize and engage the world from different historical, social, religious, and cultural approaches.

**E**ngage meanings of active citizenship in one’s community, nation, and the world.

**A.**  **General Education Competencies and Course Outcomes**

1. Listed here are the course outcomes/objectives assessed in this course which play an integral part in contributing to the student’s general education along with the general education competency it supports.

General Education Competency: **Investigate**

Course Outcomes or Objectives Supporting the General Education Competency Selected:

* Evaluate and monitor patient’s objective and subjective responses to respiratory care:

Oxygen therapy

Humidity therapy

Aerosol therapy

Bronchial hygiene therapy

Manual resuscitation

Lung expansion therapy

Airway management

* Select, assemble, use, and troubleshoot respiratory care equipment:

Oxygen administration devices

Humidifiers

Large and small volume nebulizers

Manual resuscitators

Artificial airways

Suctioning devices

High frequency chest wall oscillators

Positive expiratory pressure devices

He/O2 therapeutic gas

Metered dose inhalers and chambers

Dry powder inhalers

Tracheostomy speaking devices

Non-invasive mechanical ventilators

IPPB machines

General Education Competency: **Think**

Course Outcomes or Objectives Supporting the General Education Competency Selected:

* Independently modify treatment techniques based on the patient’s response:

Oxygen therapy

Humidity therapy

Aerosol therapy

Bronchial hygiene therapy

Manual resuscitation

Lung expansion therapy

Airway management

* Define, differentiate, and discuss the different types of respiratory failure and the need for ventilatory support.
* Define, classify, and differentiate the basic modes of ventilatory support.

General Education Competency: **Evaluate**

Course Outcomes or Objectives Supporting the General Education Competency Selected:

* Analyze patient data to prioritize patient problems, set patient goals, and recommend treatment options for reaching those set goals.

1. **DISTRICT-WIDE POLICIES:**

**Programs for Students with Disabilities**

Florida SouthWestern State College, in accordance with the Americans with Disabilities Act and the College’s guiding principles, offers students with documented disabilities programs to equalize access to the educational process. Students needing to request an accommodation in this class due to a disability, or who suspect that their academic performance is affected by a disability should contact the Office of Adaptive Services at the nearest campus. The office locations and telephone numbers for the Office of Adaptive Services at each campus can be found at <http://www.fsw.edu/adaptiveservices>.

**REPORTING TITLE IX VIOLATIONS**

Florida SouthWestern State College, in accordance with Title IX and the Violence Against Women Act, has established a set of procedures for reporting and investigating Title IX violations including sexual misconduct.  Students who need to report an incident or need to receive support regarding an incident should contact the Equity Officer at [equity@fsw.edu](mailto:equity@fsw.edu).  Incoming students are encouraged to participate in the Sexual Violence Prevention training offered online.  Additional information and resources can be found on the College’s website at <http://www.fsw.edu/sexualassault>.

1. **REQUIREMENTS FOR THE STUDENTS:**

There is a significant amount of course work done on the course’s Canvas website. Students need to have

a computer with internet capability, Microsoft Word® or its equivalent, Microsoft PowerPoint, and Adobe Reader®. If a student does not have access to a computer there are computers located in the Rush Library, back of A-214, AA-174, and AA-175. All content material posted on the course website must be reviewed and studied prior to attending each. class. An online quiz will need to be completed prior to each. class.

Admission background – The student will be responsible for all material covered in the previously taken respiratory care courses: RET 1024, RET 1616, RET 1275, RET 1007, and RET 1821.

This is an INTENSIVE COURSE that requires AT LEAST 14 TO 18 HOURS OF WORK AND STUDY TIME EACH. WEEK. STUDENTS MUST REVIEW THE ONLINE MATERIAL AND READ THE TEXTBOOK PRIOR TO EACH. CLASS.

Assignments (4 x 35 points each) 140 points

Lab Assignments/Simulations 100 points

Online Quizzes (8 x 20 points each) 160 points

Section Exams (4 x 75 points each) 300 points

Cumulative Final Exam 300 points

TOTAL 1000 points

\*Minimum passing for this course is 750 points or 75%.

The course consists of reading and writing assignments for class and lab, laboratory observations and exercises, class participation. Completion of laboratory reports and/or Check-offs are required for the course.

Each written assignment entails either reading professional articles and answering questions concerning the topics covered in the articles or completing computerized clinical simulations. Due dates will be posted on the website. The assignments must be completed on or before that set due date. Assignments submitted after the due date will receive a 5-point deduction initially and an additional 5-point reduction for each day overdue.

The lab assignments/simulations/competencies include 11 topic areas listed in the class schedule. These will be completed during the lab time and will be supervised by the lab instructors. The lab assignments/simulations/competencies will be worth 5 or 10 points each for a total of 100 points toward the final grade.

Each online quiz has a due date. The quiz must be completed on or before that set due date. Quizzes completed after the due date will receive a 5-point deduction initially and an additional 5-point reduction until the quiz closes (48 hours after the due date/time). If the quiz closes prior to the student taking the quiz the student will receive a ZERO for that quiz.

Students who must miss a scheduled examination because of illness or an emergency MUST CALL the instructor’s office the day of the exam (239-985-8306). Students must make up any missed examinations prior to the next class meeting date. Make-ups require the permission of the instructor. Any exam not made up within one week will result in a grade of zero (0) for that exam.

Students will receive ongoing assessment of and communication about their learning progress at least monthly.

1. **ATTENDANCE POLICY:**

Because this course will include a considerable amount of classroom and laboratory work, attendance is essential. Students will be in the classroom for the entire class, 8:30 am to 4:00 pm. Students will be regular and punctual in attendance for all scheduled class meetings.

If a student finds it unavoidable to be tardy or absent from any scheduled class, the student MUST CALL the instructor’s office (239-985-8306) with an explanation by no later than 7:30am on the morning of the class. Excused absences include illness and personal or family emergencies. Every unexcused absence will result in a one letter grade reduction of the student’s final course grade.

Failure to notify the instructor of tardiness will result in the reduction of the student’s final course average by 10 points for each offense. This includes returning from lunch break. Students who are tardy must wait until the class is on a break to enter the classroom. Students who leave early from class or lab, without prior arrangement, will lose 5 points from their final course grade for each occasion.

1. **GRADING POLICY:**

Include numerical ranges for letter grades; the following is a range commonly used by many faculty:

93 - 100 = A

85 - 92 = B

75 - 84 = C\*

60 - 74 = D

Below 60 = F

\* Minimum grade to progress to next semester in the Respiratory Care Program

(Note: The “incomplete” grade [“I”] should be given only when unusual circumstances warrant. An “incomplete” is not a substitute for a “D,” “F,” or “W.” Refer to the policy on “incomplete grades.)

1. **REQUIRED COURSE MATERIALS:**

• A 7-inch to 9-inch tablet &/or a smart phone for interactive presentations

• Hess DR, MacIntyre NR, Galvin WF, Mishoe SC. Respiratory Care: Principles and Practice, 3rd edition, Jones & Bartlett Learning. ISBN-13: 97812840500 (From RET 1275)

• Volsko, T, Chatburn, R.L., & El-Khatib, M. Equipment for Respiratory Care. 2016, Burlington, MA. [ISBN: 9781449652838]

1. **RESERVED MATERIALS FOR THE COURSE:**

Canvas will be used to post content modules which include the topic presentations, quizzes, scheduled lecture outlines, handouts, assignments, AARC Clinical Practice Guidelines, reading material, and appropriate videos. Check the course website regularly for updates and assignments.

1. **CLASS SCHEDULE:** (This schedule is subject to change)

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| **Date** | **Classroom: 8:30 am – 12:00 pm** | **Laboratory: 1:00 pm – 4:00 pm** | **Readings to be done prior to the class date** |
| 8/23/17 | Syllabus Review  Critical Thinking Skills  Advanced Medical Gas Therapy | Oxygen Therapy Decision Making  Review Basic O2 set ups  Heliox Administration | Volsko: Ch.1, 2, 3  Hess: Ch 13, 14 |
| 8/30/17 | Humidity Therapy  Aerosol Therapy | Heat Moisture Exchanger  Inline MDI administration  Vapotherm®  Inhaler Technique Training | Volsko: Ch. 4  Hess: Ch. 15  <http://use-inhalers.com/professional-home>  ***Assignment 1 DUE*** |
| 9/6/17 | ***Exam 1: Medical Gas Therapy, Humidity Therapy, Aerosol Therapy*** | Bag Mask Ventilation  Electrical Therapy | Volsko: Ch.15  Hess: Ch 18 |
| 9/13/17 | Airway Clearance Therapy | PEP Therapy, PDPV, MetaNeb®, HFCWO, Cough Alternatives, | Volsko: Ch. 13  Hess: p. 352 - 371  Clinician’s Guide to PAP Adherence |
| 9/20/17 | Airway Clearance Therapy  Lung Expansion Therapy | Breathing exercises, Incentive Spirometry, Bird IPPB | Volsko: Ch.12  Hess: p. 371 - 379 |
| 9/27/17 | Lung Expansion Therapy | **CROSS-COURSE SIMULATION**  Critical Thinking Exercise | Volsko: Ch.12  Hess: p. 371 - 379  ***Assignment 2 DUE*** |
| 10/4/17 | ***Exam 2: Airway Clearance, Lung Expansion Therapy, Cardioversion, Manual Resuscitators*** | **CROSS-COURSE SIMULATION**  Clinical Simulation Exercise |  |
| 10/11/17 | Noninvasive Ventilation | V-60 Lab | Hess: Ch 21 |
| 10/18/17 | Establishing an Airway | Intubation Practice  Cuff Pressure Monitoring  Extubation Practice | Volsko: Ch. 5  Hess: Ch. 17 |
| 10/25/17 | Airway Management | **CROSS-COURSESIMULATION**  Tracheostomy Care | Volsko: Ch. 5  Hess: Ch. 17  ***Assignment 3 DUE*** |
| 11/1/17 | ***Exam 3****:* ***Noninvasive Ventilation, Establishing an Airway, Airway Management*** | Clinical Simulation Exercise |  |
| 11/8/17 | Mechanical Ventilation | Build a ventilator | Volsko: p 271 - 277  Hess: Ch. 19 |
| 11/15/17 | Mechanical Ventilation | Investigation of MV modes and settings | Volsko: p 277 – 285  Hess: Ch 20 |
| 11/22/17 | Mechanical Ventilation | **CROSS-COURSE SIMULATION** | See above readings |
| 11/29/17 | ***Exam 4: Mechanical Ventilation***  Final Exam Review | Final Exam Review  **CROSS-COURSE SIMULATION** | ***Assignment 4 DUE*** |
| 12/6/17 | **Comprehensive Final Examination**  **9am – 11am (2 hours) 100 questions** |  |  |

1. **ANY OTHER INFORMATION OR CLASS PROCEDURES OR POLICIES:**

The class is scheduled to meet on Wednesdays from 8:30 A.M. to 4:00 PM in A-214. The afternoon session may be held in A-214, AA-217 or AA-218.

**Clinical Associates for laboratory:**

Valorie Daniels BS, RRT

Randy Gerlach BS, RRT

Professor O’Connell

This class integrates with RET 2254C and RET 2714. The Canvas content is established to give students a broad variety of means for learning assigned and related respiratory care Therapeutics that is essential for safe practice as a respiratory therapist. Canvas is an integrated feature for this course, to assist in overcoming obstacles to study, posed by time and distance. Socrative is a student response system (uses Wi-Fi) that is used during classroom discussions to engage students in active learning through multiple choice questions and fill-ins. Students are required to bring their 7” electronic tablet to every class meeting.

Use of personal cell phones and pagers is prohibited during class as per the Student Code of Conduct, Article IV, and section 18 on page 48 in the College Catalog. **ALL CELL PHONES NEED TO BE TURNED OFF OR PUT INTO AIRPLANE MODE**. Any student who has a cell phone that rings during class will be asked to leave. Use of a cell phone for outgoing, as well as incoming, calls and texts will receive a one grade level deduction on their final average.

Visitors, including Children, are not permitted in class.

Students who fall asleep or disrupt the class by talking excessively will be asked to leave and lose 10 points off their final average.

**Academic Dishonesty** (Cheating) is defined as completing written assignments, quizzes or exams with unauthorized electronic, written or verbal assistance. It is also defined as providing unauthorized electronic written or verbal assistance to another student during a required assignment, quizzes or exams. Academic dishonesty is unacceptable behavior. This behavior is subject to sanctions ranging from complete loss of credit on a required assignment, quiz or exam to dismissal from the Respiratory Care Program