



## Respiratory Care Techniques I

RES 100.01

Winter 2019

**Number of Credits:** 7

**Office Phone:** (517) 796-8684

**Days Class Meets:** Mon.; Weds. (Lecture)  
Weds (Lab)

**Cell Phone:** (616) 446-3856

**Meeting Times:** 1-4 pm M; 2-4 pm W (Lecture)  
9:30 am-1:30 pm; 4-8 pm (Lab)

**Contact Email:** flintanm@jccmi.edu

**Office Hours:** Mon.: 4 to 6 pm;

Tues.: 11am to 5pm

*additional by appt*

**Location:** HLC 204

**Instructor:** Ann Flint, EdD, RRT

**Online:** JetNet course

ClinicalTrac tracking system

CastleBranch health record tracking

**Office:** JW 245

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### Course Description

This classroom and laboratory course is an introduction to the duties and responsibilities of respiratory care practitioners. Topics covered include a review of physical science, cardiopulmonary anatomy and physiology, cardiopulmonary resuscitation, basic nursing skills, medical gas and aerosol administration, employee health and safety, pulmonary medications, and an orientation to clinical sites.

### Prerequisite(s)

Acceptance into the Respiratory Care program

### Course Goals

The course goals and objectives incorporate specific General Education Outcomes (GEOs) and Essential Competencies (ECs) established by the JC Board of Trustees, administration, and faculty. These goals are in concert with four-year colleges, universities, and reflect input from the professional communities we serve. GEOs and ECs guarantee students achieve goals necessary for graduation credit, transferability, and professional skills needed in many certification programs. The course objectives addressed in this class include the following:

- **Cognitive (EC 1):** Each student will be expected to **Compare/contrast principles of operation including indications, contraindications, safety features, hazards for various O<sub>2</sub> systems (including cylinders, regulators, flow meters, nebulizers, humidifiers, aerosol administration devices, O<sub>2</sub> analyzers and blenders).**
- **Cognitive (EC 1):** Each student will be expected to **Identify the basic anatomical structures of the cardiopulmonary system and discuss the basic physiological processes that are necessary for successful internal and external respiration.**
- **Cognitive (GEO 7):** Each student will be expected to **Display acceptable fluency in professional attitudes, professional medical ethics, and concern for patients from diverse backgrounds as prescribed in the Respiratory Care program's Clinical Policies manual.**

## Course Objectives

### Major Units:

1. Cardiopulmonary Anatomy
2. Cardiopulmonary Physiology I
3. Cardiopulmonary Physiology II
4. Medical Gases
5. Humidity and Aerosol Therapy
6. Oxygen Therapy
7. Diversity
8. Health/Safety
9. Pharmacology I
10. Pharmacology II

### Laboratory Assignments:

1. Nursing Arts
2. Pulmonary Function Testing
3. Microcomputer Usage and Acid-Base Interpretation
4. Oxygen Analyzers and Pulse Oximeters
5. Cylinders and Regulators
6. Blenders and Flowmeters
7. Humidification Devices
8. Nebulizers
9. O<sub>2</sub> Administration Devices
10. Equipment Processing
11. Flipped Drug Scenarios
12. Laboratory Practical Exam: **Both sections meet together 9:30 am-1:30 pm on Apr. 10.**
- 13-15. Clinical Orientation: Both sections meet together in **Wk. 14** (see calendar; plan is tentative)

**Mon., Apr. 22, 1 -5 pm**

**Weds., Apr. 24, 1:30 -4:30 pm**

**Detailed objectives will be distributed during the course to align with these general objectives.**

## Textbooks/Reference Materials

### Required Texts:

1. Egan's Fundamentals of Resp. Care, 11<sup>th</sup> ed., Kacmarek et. al., Elsevier, 2017, ISBN 978-0-3233-4136-3. (**Egan**)
2. Equipment for Respiratory Care, 1st ed., Volsko, et. al., Jones and Bartlett, 2016, ISBN 978-1-4496-5283-8. (**Equip**).
3. Rau's Respiratory Care Pharmacology, 9<sup>th</sup> ed., Gardenhire, Elsevier, 2016, ISBN 978-0-3232-9968-8. (**Rau**).
4. Respiratory Care: Patient Assessment and Care Plan Development, 1<sup>st</sup> ed., Shelledy and Peters, Jones and Bartlett, 2016, ISBN 978-1-4496-7244-7. (**Shelledy**)
5. Culturally Competent Health Care, 3<sup>rd</sup> ed., Purnell, F.A. Davis, 2014, ISBN 978-8036-3962-1. (**Purnell**).
6. Lecture syllabus, unit outline, class handouts and supplements.

### Optional Texts:

1. The Essentials of Respiratory Therapy, 4<sup>th</sup> ed., Kacmarek, et. al., Elsevier, 2005, ISBN 978-0-3230-2700-7. (**Kacmarek**).
2. Clinical Blood Gases, 2<sup>nd</sup> ed., Malley, Elsevier, 2005, ISBN 978-0-7216-8422-2. (**Malley**).

NOTE: (**Bold Name**) represents how this text will be referred to when cited in unit outlines.

**Textbook Zero:** All texts are available in digital format from the book store / many online sources.

## Grading Procedure (Lecture Portion of Class):

Course points are derived from unit exams, quizzes and assignments, a lab score, and a comprehensive final exam. Most testable material for unit and final exams is listed in unit objectives, but can also be based on relevant material from other classes in this term, and may include additional material as covered in class outlines and lecture. Additional quizzes, assignments, case studies or exams may be assigned in addition to those scheduled.

The system for evaluation will consist of:

- Exams: 70%
- Labs: 10%
- Quizzes/Assignments: 10%
- Final: 10%

***A no show/no call for any scheduled or announced exam/quiz may result in a test grade of zero.*** Notification of a desire to schedule a make-up test is to be received prior to the time of the original exam in order to be routinely eligible for a makeup exam. ***If taken the same day as decided by the instructor, there is no penalty, as long as there has been prior notice given.*** This must be arranged with the instructor in advance. I may be notified directly by phone or via voice-mail message at (616) 446-3856. ***By course policy, all first make-up exams lose 8 points from the final grade, a subsequent make-up exam loses 16 points, and a third requested make-up loses 24 points.***

Failure to maintain up to date ***health records and CPR certification*** will result in a ***weekly 5 point deduction from the final grade until records are in compliance.***

**Cell phones** are to be set so as not to disrupt normal classroom communications; i.e., no cell phone ringing should be detectable to faculty or students. **For each incidence of detectable cell phone activation, 5 points will be deducted from the student's final total points earned.** You may excuse yourself if an urgent call is expected or you feel that it needs to be taken immediately, but your phone should be set on vibrate or with the ringer lowered in such an extreme case. Please do not abuse this privilege.

During an exam, only pencils, exam/Scantron, and program provided simple calculator are allowed. All cell phones, smart watches, personal graphing calculators and other electronic devices are not allowed. These may be placed in a book bag, purse or other suitable container and stored at the front of the room for the duration of the exam.

**Computerized RT Quizzes--** must be completed and turned in with 80% scores by the 13<sup>th</sup> week of the term:

1. ABG: Acid-Base Evaluation - **80%** score required.
2. ABG: PaO<sub>2</sub> Evaluation (Oxygenation) - **80%** score required.
3. Pulmonary Physiology Math - This is extra credit—1 point for each item completed correctly.

ALL RT computer testing is mastery testing. A student may **repeat a test as many times as needed** until the student achieves a desired score. If multiple printouts are generated, only the **most recent** score need be turned in.

## Grading Procedure (Lab Portion of Class):

### Lab Portion of Class:

The system for evaluation will consist of:

- Labs: 35%
- Lab Practical: 40%
- Preparedness: 10%
- Attendance: 15%

**Total: 100%** to be scaled to a 100 point score, then calculated into the RES 100 grade.

### EVALUATION

Points earned in the RES 100 Lab will apply towards the overall grade for the RES 100 class, final weighting of lab points will be determined by the RES 100 classroom instructor. In general, lab reports will be **due on the Monday following** the completed lab.

- **Preparedness points** are treated in the following fashion: **-5 points** on the first and subsequent incidences where not having required materials present in lab interferes (in the lab instructor's opinion) with performing the lab. The lab instructor will on occasion check the lab materials at the beginning of the lab day. If the lab pre-class work is **NOT totally completed, preparedness points will be deducted** for that day.
- **Attendance points** are treated in the following fashion:
  - **-5 points** for each absence which is either unexcused or is excused but not made up. **A partial loss of attendance points will result from unsatisfactory make-up efforts for a missed lab or from significant tardiness when arriving to a lab**; the extent of point loss is at the instructor's discretion.
  - -5 points for being out of uniform. You will be expected to wear **the complete clinical uniform to all labs** (see **dress code on pg 19-20 in program handbook**) beginning the 13<sup>th</sup> week of class (**Apr. 17<sup>th</sup>, 2019**).
- **No show/no call policy**, covering scheduled or announced labs, exams or quizzes and make-up tests, is the same as for RES 100 lecture. In general, if lab is missed, there will be **an automatic 5 point deduction from the final grade for that lab**, whether the lab is made up or not. This **deduction will double** for each subsequent missed lab. Also, labs that are late will be subject to a late penalty (**-5pts/day for up to 8 days late** to give a **maximum of -40 pts** for late turn-ins; labs turned in later than 8 days will lose an additional **10 pts/week**).

### REQUIRED MATERIALS TO BE BROUGHT TO LABS

1. The lab syllabus and all PEFs, textbooks and other material noted for the specific lab either on Page 1 of this syllabus **or** on the first page of the lab exercise (i.e., check the calendar and lab introduction **at least 1 full day** prior to the lab, although most will require more prep time than this)
2. RES 100 Lecture notebook
3. Any lab handouts that are given out prior to lab day
4. Notebook, straight edge marked in inches and cm/mm (minimum 6 inch or 15 cm), and pencil
5. Calculator, watch with sweep second hand or stop watch feature, colored pencils or suitable alternative
6. Full clinical uniform required the 13<sup>th</sup> week of class (**Apr. 17<sup>th</sup>, 2019**)

### PREPARATION OF LABS FOR GRADING

Each lab consists of a number of activities including: writing answers to questions, writing descriptions of skill performances, computing answers to math problems, labeling diagrams, etc.

Only lab pages with gradable work are to be turned in for evaluation by the lab instructor. Lab reports should be returned to the instructor on the Monday of the week following the scheduled performance of the lab.

Labs will be graded for:

1. Completeness,
2. Proper format,
3. Accuracy/correctness of information,
4. Neatness/legibility of writing, and
5. Promptness at being turned in (**5%/day for up to 8 days** late to give a maximum of **-40%** for late turn-ins; labs turned in later than 8 days will lose an additional **10 pts/week**).

Lab pages are to be turned in:

1. Properly **sequenced**,
2. With the student **name** and **lab section number** on the appropriate line of the first page, and
3. Pages **stapled**.

Students will be expected to complete an evaluation of the course on-line in JetNet at the conclusion of the semester.

## Grading Scale for All Respiratory Care Courses

To pass RES 100 the final course average score must be  $\geq 76\%$ .

GPA	GRADE RANGE	GPA	GRADE RANGE
4.0	93-100%	1.5	73-75%
3.5	89-92%	1.0	68-72%
3.0	84-88%	0.5	64-67%
2.5	80-83%	0.0	0-64%
2.0	76-79%		

## Required Extras

**Grey Scrubs** (as part of **full clinical uniform**). See Program Handbook for other requirements.

## Academic Honesty Policy

If I suspect you of academic dishonesty, I will follow JC's Academic Honesty Policy and take appropriate action up to and including assigning a failing grade for the paper, project, report, exam, or the course itself (whichever I deem necessary). To see the policy, visit: <https://www.jccmi.edu/wp-content/uploads/StudentCodeOfConduct.pdf>.

Academic Honesty is defined as ethical behavior that includes student production of their own work and not representing others' work as their own, by cheating or by helping others to do so.

**Plagiarism is defined as the failure to give credit for the use of material from outside sources.**

**Plagiarism includes but is not limited to:**

- Submitting other's work as your own
- Using data, illustrations, pictures, quotations, or paraphrases from other sources without adequate documentation
- Reusing significant, identical or nearly identical portions of one's own prior work without acknowledging that one is doing so or without citing this original work (self-plagiarism)

**Cheating is defined as obtaining answers/material from an outside source without authorization.**

**Cheating includes, but is not limited to:**

- Plagiarizing in any form
- Using notes/books/electronic material without authorization
- Copying
- Submitting others' work as your own or submitting your work for others
- Altering graded work
- Falsifying data
- Exhibiting other behaviors generally considered unethical
- Allowing your work to be submitted by others

## Incompletes Policy

(Excerpt from JC Policy) "A student may request an incomplete from the instructor. The incomplete will be granted only if the student can provide documentation that his or her work up to that point is sufficient in quality, but lacking in quantity, due to circumstances beyond the student's control. Furthermore, a written plan for making up the missing work within one semester must be completed by the student. Final determination of whether an incomplete will be given is the instructor's decision."

## Help

It can be very frustrating when you do not understand concepts and are unable to complete homework assignments. However, there are many resources available to help you with your study of respiratory care (besides visiting me during office hours):

- **CENTER FOR STUDENT SUCCESS:** Tutors (plus additional services for academic success) can be accessed by calling **796-8415** or by stopping by the **Center for Student Success, Bert Walker Hall, Room 138**. Arrange to get regular assistance from a tutor. Also, students requiring special assistance (including those affected by the Americans with Disabilities Act) should contact the Center for Student Success. This is the first step in acquiring the appropriate accommodations to facilitate your learning. It is important to contact a Center for Student Success professional **prior to the start of the semester** in order to receive accommodations in a timely manner. While we will make every effort to coordinate accommodations in a timely manner, failure to self-identify prior to the start of the semester may delay notification to instructors and timeliness of acquiring accommodations. **Accommodations do not automatically carry over to the next semester.** <https://www.jccmi.edu/center-for-student-success/accommodations-for-students-with-disabilities/>
- **STUDY GROUP:** Find a study partner or a study group. Sometimes it helps to work through problems with another person.
- **JETNET:** There will be material posted there to help students and allow them to ask questions of the instructor and/or the group.
- **EMAIL:** The best and quickest way to get a hold of me, besides attending class, of course.
- **Redo problems** from tests and homework assignments, particularly ones that you got wrong or have trouble understanding. Remember that you must crawl before you can walk. Similarly, you must have a good handle on the basics of respiratory care before you can master the advanced concepts.

**"Jane's Study Plan"** (with permission): A student who was very successful in the nursing program offered to share what she did to be so successful.

- Read material before class.
- Take good notes in class.
- Go home after class and re-read your text. Fill in your notes further with information from your text. Jot down any study tips or reminders.
- Write out (again!) every piece of information you need to study and quiz yourself. Have questions on one half of your paper (or on one side of an index card) and answers on the other.
- Spend at least **two hours** of study time for each hour spent in class. (**Six hours** of study per week for a 3-credit class).
- Take advantage of looking carefully at and learning from mistakes on tests after they are handed back.

## Student Responsibilities

**See Respiratory Care Program Handbook for program expectations.**

**Class Conduct:** Please recognize that all students have an equal right to a quality classroom experience. Behavior that would adversely affect the rights of another student (i.e. side conversations, disruptive actions, etc.) will result in those responsible being asked to leave for the remainder of the period and losing credit for any work that is missed.

**Classroom expectations:** There are a few expectations that will be enforced in the classroom and lab:

1. First, attendance is very important to successfully learn and retain lecture information. Therefore attendance in class all day, every day is expected and encouraged. According to the **JC Respiratory Care Program Student Handbook**, student responsibilities include “taking an active role in the learning process”, and one cannot do this if you are not there and participating in discussion and class activities. The student will be responsible for contacting the instructor to obtain any make up material needed as a result of the absence. In order to facilitate preparation of such materials, the student will probably best contact the instructor as much in advance as possible via email or phone prior to class time if there is any expected absence or any makeup material needed. Then the student will need to contact the instructor after the absence to obtain any missing materials. As for notes or other content covered during class, it is the student’s responsibility to gather such material, so going to the instructor and asking for any handouts or materials is the student’s responsibility. Also, having a fellow student from whom the student can get such notes is vital in the event of an absence.
2. In addition, the **JC Respiratory Care Program Student Handbook** will be followed closely pertaining to classroom behavior. As stated in the Handbook, “Responsibilities borne by the student in maintaining an optimal learning environment include treating other students, instructors, respiratory therapists, and co-workers (e.g. nurses) with the respect afforded to fellow health care professionals.” Mutual respect between the instructor and all students is expected at all times. Disrespect and other disruptive behaviors which inhibit the teaching and learning to which the entire class is entitled will not be tolerated. Any incidents will be handled in keeping with the disciplinary policy spelled out beginning on **p. 17** of the **JC Respiratory Care Program Student Handbook**, and appropriate action taken up to and including **class expulsion**.
3. Thirdly, assignments or take home quizzes are expected to be handed in on the appropriate due date (which shall be **one week** from when they are given out in class). They may be handed in any time on the due date up to 4 pm with no penalty. In general, assignments that are late will be subject to a late penalty (5 pts/day deducted from the final grade for that assignment, for up to 8 days late to give a maximum of –40 pts for turn-ins late by one week; assignments turned in later than 8 days will lose an additional 10 pts/week).
4. Students are expected to conduct themselves in a professional manner and utilize lab time efficiently for practicing skills or completing assigned work.
5. Students are expected to adhere to the program dress code in all labs.
6. Attendance is expected in all labs. See **Grading Procedure (Lab Portion of Class)** for policies governing attendance in lab.

## **Attendance Policy**

**See Respiratory Care Program Handbook for program expectations.**

In compliance with Federal Title IV funding requirements, as well as college initiatives, reporting of student participation in classes will occur at three designated times each semester. Instructors will assign one of three non-transcribed letter symbols to each student during each reporting period (see below). Students identified as no longer participating will be dropped or administratively withdrawn from the class, and students identified as needing academic assistance will be contacted.

### **Participation/Progress Symbols**

- H – The student is not doing acceptable work and needs **Help** to be successful.
- Q – The student has not participated and the instructor believes they have unofficially withdrawn (**Quit**). These students will be dropped/withdrawn from the class.
- V – The instructor **Verifies** that the student is participating and doing acceptable work.

**Caveat**

All lectures cancelled, **regardless** of reason, will be made up at a later time to be determined by course instructor.

**Failure of Course**

See program handbook for program reentry process.

## Medical Terminology/Abbreviations List

Abbrev:	Means:	Abbrev:	Means:	Abbrev:	Means:
<b>A</b>		CA	cancer	DRG	diagnostic related group
@	at	Ca, Ca <sup>++</sup>	calcium	D/S	dextrose in saline
a	before	CABG	coronary artery bypass graft	DW	distilled water
abd	abdomen	CAD	coronary artery disease	D/W	dextrose in water
ABG	arterial blood gas	cal	calorie	Dx	diagnosis
ac or a.c.	from "ante cibum", before meals	CAT	computerized axial tomography	<b>E</b>	
ACTH	adrenocorticotrophic hormone	cath	catheterization	ECG	electrocardiogram
ADL	activities of daily living	CBC	complete blood count	ECMO	extra-corporeal membrane oxygenation
ad lib	ad libitum (Latin: Freely)	CBR	complete bed rest	ED	emergency department
AFB	acid-fast bacillus	CC	chief complaint	EEG	electroencephalogram
AgNO <sub>3</sub>	silver nitrate	CCU	coronary care unit	EENT	ears, eyes, nose and throat
AHD, ASHD	arteriosclerotic heart disease	CF	cystic fibrosis	EKG	electrocardiogram
AIDS	acquired immune deficiency syndrome	CHD	coronary heart disease	EMG	electromyogram
AKA	above-the-knee amputation, also known as	CHF	congestive heart failure	ENT	ears, nose and throat
ALS	amyotrophic lateral sclerosis (Lou Gehrig's disease)	CHI	closed head injury	ER	emergency room
am or AM	ante meridiem, meaning morning, day shift	chol	cholesterol	etiol	etiology
AMA	against medical advice	CK	creatin kinase	ETT	endotracheal tube
AMI	acute myocardial infarction	Cl, Cl-	chlorine, chloride	exam	examination
amb or Amb	ambient, ambulate	cm	centimeter	ext	external
amp	ampule	CNS	central nervous system	<b>F</b>	
amt	amount	c/o	complains of	f	frequency (usually respiratory rate)
ant	anterior	CO	cardiac output, carbon monoxide	F	Fahrenheit
AOD	adult onset diabetes	CO <sub>2</sub>	carbon dioxide	FBS	fasting blood sugar
AP or A/P	anteroposterior	COLD	chronic obstructive lung disease	Fe	iron
A&P	anatomy & physiology, anterior & posterior	COPD	chronic obstructive pulmonary disease	♀	female
aq or aq.	aqueous	CP	chest pain, cerebral palsy, cardiopulmonary	Fr	French catheter size
ARDS	adult respiratory distress syndrome	CPR	cardiopulmonary resuscitation	FTT	failure to thrive
ASA	acetylsalicylic acid (aspirin)	CPAP	Continuous positive airway pressure	FUO	fever of unknown origin
ASAP	as soon as possible	CRNA	certified registered nurse anesthetist	fx	fracture, function
ASD	atrial septal defect	CRT	certified respiratory therapist	<b>G</b>	
as tol	as tolerated	C&S	culture & sensitivity	g or gm	gram
AV	atrioventricular	C-section	cesarean section	GB	gallbladder
AVR	aortic valve replacement	CSF	cerebrospinal fluid	GI	gastrointestinal
<b>B</b>		CT	computed tomography	gtt & gtts	from "guttae", drops
BBB	bundle-branch block	CVA	cerebrovascular accident	GSW	gunshot wound
bid or BID	from "bis in die", twice a day	CVP	central venous pressure	GTT	glucose tolerance test, drops
BKA	below-the-knee amputation	CXR	chest x-ray	GU	genitourinary
BM	bowel movement	<b>D</b>		gyn	gynecology
BP	blood pressure	DC	discontinue, discharge	<b>H</b>	
BR	bed rest	D/C	discontinue, discharge	H <sub>2</sub> O	water
BRP	bathroom privileges	D&C	dilatation and curettage	H <sub>2</sub> O <sub>2</sub>	hydrogen peroxide
BS	breath/bowel sound	DIC	disseminated intravascular coagulation	h or hr	hour
BUN	blood urea nitrogen	diff	differential	HCl	hydrochloric acid
<b>C</b>		DM	diabetes mellitus	HCO <sub>3</sub> <sup>-</sup>	bicarbonate
c	with	DOA	dead on arrival	hct	hematocrit
C	carbon, kcal, Celsius	DOE	dyspnea on exertion	Hg	mercury

Abbrev:	Means:	Abbrev:	Means:	Abbrev:	Means:
<b>H</b> (cont.)		Mg, mgm	milligram	P.O.	Latin "per os", by mouth
Hgb or Hb	hemoglobin	MI	myocardial infarction	PO	phone order
HIPAA	Health Insurance Portability and Accountability Act	ml	milliliter	post-op	post-operative
HMD	hyaline membrane disease	mm	millimeter	PPD	purified protein derivative (TB skin test)
HO	house officer (intern)	MOM	milk of magnesia	PRN or p.r.n.	from "pro re nata", for an occasion that has arisen, as circumstances require, as needed
h/o	history of	MS	morphine sulfate	pt	patient
HOB	head of bed	MVA	motor vehicle accident	PT	physical therapy
H&P	history & physical	MVP	mitral valve prolapse	PTT	partial thromboplastin time.
HS	hour of sleep (bedtime)	<b>N</b>		PVC	premature ventricular contractions
ht	height	Na, Na <sup>+</sup>	sodium (sodium)	PVD	peripheral vascular disease
HTN	hypertension	NA	not applicable, not available	<b>Q</b>	
Hx	history	NaCl	sodium chloride	Q or q	from "quaque", every
hypo	hypodermic	NB	newborn	q.d.	every day
<b>I</b>		neg	negative	q.i.d	from "quater in die", 4 x a day
ICP	intracranial pressure	neuro	neurology	q.h.	every hour
ICU	intensive care unit	NG tube	nasogastric tube	q.2h.	every 2 hours
IDDM	insulin dependent diabetes mellitus	NICU	neonatal intensive care unit	q.3h.	every 3 hours
IM	intramuscular, internal medicine	NKA	no known allergies	q.4h.	every 4 hours
I&O	input & output	noc	night	qHS	every night at bedtime
IPPB	intermittent positive pressure breathing	NPO or npo	nothing per os (by mouth)	<b>R</b>	
irrig	irrigation	NS	normal saline	(R)	right
isol	isolation	NSR	normal sinus rhythm	RA	room air
IV	intravenous	<b>O</b>		RA	right atrium
<b>K</b>		O <sub>2</sub>	oxygen	RBC	red blood cells
K	kilo, Kelvin, potassium	OB	obstetric	RDS	respiratory distress syndrome
K <sup>+</sup>	potassium	OD	overdose	reg	regular
KCl	potassium chloride	OOB	out of bed	resp	respiratory
kg	kilogram	OP	out patient	RLL	right lower lobe
KO	keep open	OR	operating room	RN	registered nurse
<b>L</b>		ortho	orthopedics	R/O	rule out
L	liter, left, lung, lobe, lumbar	OT or O.T.	occupational therapy	ROM	range of motion
(L)	left	<b>P</b>		RRT	registered respiratory therapist
lat	lateral	p	from the Latin "post", after	RSV	respiratory syncytial virus
L&D	labor & delivery	P	first heartbeat wave, para, pulse	rt	right
LDH	lactate dehydrogenase	PA	physician assistant	RT	respiratory therapy, respiratory therapist
lg	large	P-A or PA	posteroanterior	RUL	right upper lobe
LLL	left lower lobe	PAC	premature atrial contraction	Rx	treatment/therapy
LLQ	left lower quadrant	pc or p.c.	from "post cibum", after meals	<b>S</b>	
LPN	licensed practical nurse	PCP	Pneumocystis carinii pneumonia	s	without
lt	left, light	PDA	patent ductus arteriosus	Sc, SC, subq	subcutaneous
LTB	laryngotracheobronchitis (croup)	PDR	Physicians Desk Reference	SIDS	sudden infant death syndrome
LUL	left upper lobe	peds	pediatrics	SOAP	subjective, objective, assessment, plan
<b>M</b>		PEEP	positive end-expiratory pressure	SOB	short of breath
O	male	per	by	ss	one-half from semis [L.]
MD	muscular dystrophy, medical doctor	PERRLA	pupils equal, round and reactive to light	Staph	staphylococcus
mEq	milliequivalent	PM or pm	evening	stat	urgent or rush-- from the Latin word "statim" which means immediately
		PND	paroxysmal nocturnal dyspnea	surg	surgical

Abbrev:	Means:	Abbrev:	Means:	Abbrev:	Means:
<b>T</b>		TLC	total lung capacity	<b>V</b>	
t-boned	side impact car crash	TPN	total parenteral nutrition	VO	verbal order
T&A	tonsillectomy and adenoidectomy	trach	tracheostomy	VS or V/S	vital signs
tab	tablet	Tx	treatment, therapy	<b>W</b>	
TB	tuberculosis	<b>U</b>		WA	while awake
temp	temperature	UGI	upper gastro-intestinal	WBC	white blood cell
TIA	transient ischemic attack	URI	upper respiratory infection	wt	weight
tid or TID	from "ter in die", 3 times a day	UTI	urinary tract infection		

From JCAHO	Unsafe Abbreviations	So...learn these so as to recognize them, but use the new preferred practices (below).
Potentially Unsafe Practices	Practice Prone to Error	Preferred Practice
U or u, meaning units, not written out.	can be mistaken as "cc", "4", "6", "0", "µ".	write out "units".
µ not written out.	can be mistaken as "mg" or "U".	write out "micrograms".
d or D not written out.	could mean day or doses.	write out "day" or "dose".
X.0 mg (trailing zero used).	"1.0" can be interpreted as "10".	don't use ".0". Write 1 mg, not 1.0 mg.
.X mg (leading zero not used).	".1" can be interpreted as ".1".	use preceding 0. Write 0.1 mg, not .1 mg.
IU, meaning international units, not written out.	can be mistaken as "IV" or "10".	write out "international units".
QD, QOD, QID not written out.	can be mistaken for each other.	write out "daily" or "every other day".
MS, MSO <sub>4</sub> , MgSO <sub>4</sub> not written out.	can be mistaken for each other.	write out "morphine sulfate" or "magnesium sulfate".
cc or CC not written out.	can be mistaken as "µ" or "U".	Use "ml" instead.
hs or HS not written out.	can be mistaken for many other things.	write out "hour of sleep" or "at bedtime".
DC or D/C not written out.	can be mistaken for many other things.	write out "discharge" or "discontinue".
qh, q3h, q4h, (etc.) not written out.	can be mistaken for each other.	write out "every 3 hrs", etc.

## Calendar

See Attached **Winter 2019 Calendar**.

### Important Dates: Winter 2019

DATE	EVENT
JAN. 14, 2019	DAY AND EVENING CLASSES BEGIN
JAN. 14 – MAY 5, 2019	SEMESTER DATES
FEB. 1, 2019	IN-SERVICE DAY. NO CLASSES
FEB. 15, 2019	PATHWAY SHOWCASES DAY. NO CLASSES
MAR. 11-17, 2019	MID-SEMESTER BREAK. NO CLASSES
MAY 4, 2019	COMMENCEMENT
MAY 5, 2019	END OF WINTER SEMESTER
MAY 7, 2019	GRADES DUE

Lab Calendar/Readings (tentative: some changes expected....):

<b>LAB CALENDER</b>		
<b>LABORATORY TOPIC</b>	<b>DATE</b>	<b>TEXT REFERENCES</b>
#1 Nursing Arts / Your culture	<b>Jan. 16</b>	<b>Egan:</b> pp. 327-32, 336-40, 171-73, 60-68. / <b>Shelledy:</b> Ch. 5. <b>PEFs:</b> Apical Pulse (#F7); Peripheral Pulse (#F8); Blood Pressure (#F9); Patient Assessment (#F10); and Handwashing (#F4). <b>Purnell:</b> Ch. 1-2.
#2 Pulmonary Function Testing/ Cultural values  <b>Medical Terminology Quiz (A-E)</b>	Jan. 23	<b>Egan:</b> pp. 405-17 (PFT), 1167, 1169 (Table 51-1), 1195 (Table 52-1). <b>Shelledy:</b> pp. 563-4. <b>Equip:</b> Ch. 8. <b>PEFs:</b> Patient Assessment (#F10); Bedside Monitoring: MIP (#B.05); V <sub>E</sub> , IC, and VC (#B.06). <b>Kacmarek:</b> Ch. 19 section I & II (omit part IIC.); pp 397-409.
#3 Computer Lab Use and Acid-Base Interpretation / Barriers to Healthcare Pig Lung dissection  <b>Spirogram Quiz</b>	Jan. 30	<b>Egan:</b> pp. 294-306 (Ch. 14). / <b>Shelledy,</b> pp 282-283, 298-341. <b>ABG Acid-Base Interpretation:</b> (program on lab computers). <b>Purnell:</b> Ch. 3. <b>Kacmarek:</b> Ch. 15. <b>Malley:</b> pp 36-46 (acid-base topics).
#4 Oxygen Analyzers and Pulse Oximeters/ Choose four cultural groups to discuss in class.  <b>Medical Terminology Quiz (F-K)</b>	<b>Feb. 6</b>	<b>Egan:</b> pp. 370-371, 387-397 (Ch. 19). / <b>Shelledy:</b> pp 341-44. <b>Equip:</b> pp. 127-8, 157-73, 175-84, 186-92, 195-200, 212-56. <b>PEFs:</b> Measurement of O <sub>2</sub> Concentrations (#F6); Pulse Ox (#B.01). <b>Purnell:</b> Ch. 4-37. <b>Kacmarek:</b> pp 659-60, 665-667. <b>Malley:</b> pp 84-6; pp 388-403; pp 406-415.
#5 Cylinders and Regulators/ Discuss your four cultural groups.	Feb. 13	<b>Egan:</b> pp. 887-899 (Ch. 40). <b>Equip:</b> pp. 1-35. <b>PEFs:</b> Cylinder Safety and Transport (#F3). <b>Kacmarek:</b> Ch. 33.
#6 Blenders and Flowmeters	Feb. 20	Flowmeters-- <b>Equip:</b> pp. 32-34; <b>Egan:</b> pp. 899-904 (Ch. 40). Blenders-- <b>Equip:</b> pp. 35-36; <b>Egan:</b> pp. 924-25 (Ch. 41). Venturis-- <b>Equip:</b> p. 46, p. 49; <b>Egan:</b> pp. 917-24.
<b>Acid-Base Interpretation Quiz Due</b>	Feb. 21	
#7 Humidification Devices <b>Medical Terminology Quiz (L-P)</b>	Feb. 27	<b>Egan:</b> pp. 109-13 (esp. Fig. 6-13!), 821-41 (Ch. 38). <b>Equip:</b> pp. 75-85, 90-94. <b>Kacmarek:</b> pp. 634-7.
#8 Nebulizers  <b>Medical Terminology Quiz (Q-U)</b>	<b>Mar. 6</b>	<b>Egan:</b> pp 844-9, 834-41, 858-65, and box 39-6 (nebs); 848-58, and Boxes 39-1 to 39-3 (MDI); Box 39-4 (DPI). <b>Equip:</b> pp. 85-90, Ch. 14. <b>PEFs:</b> Continuous Aerosol Therapy (#A.03), Medication Nebulizer Therapy (#A.05), MDI (#A.06) and DPI (#A.07). <b>Kacmarek:</b> Ch. 35.
<b>Spring Break—No Class!</b>	<b>Mar. 13</b>	
#9 O <sub>2</sub> Administration Devices  <b>Medical Terminology Quiz (V- Δ'd)</b>	Mar. 20	<b>Egan:</b> pp. 905-27 (Ch. 41). / <b>Equip:</b> pp. 37-51, Ch. 15. <b>PEFs:</b> Oxygen Therapy (#A.01). <b>Kacmarek:</b> pp 610-22.
#10 Equipment Processing <b>Medical Terminology Quiz (All!)</b>	Mar. 27	<b>Egan:</b> Ch. 4. <b>PEFs:</b> Isolation (#F1); Cleaning, Disinfection, Sterilization (#F2).
<b>No Lab today</b>	<b>Apr. 3</b>	<b>MSRC Meeting in Kalamazoo</b>
<b>HIPAA Quiz</b>	<b>MON.</b> <b>Apr. 8</b>	
<b>LABORATORY PRACTICAL EXAM</b> tentative time: 9:30a-1:30p, <b>EVERYBODY!</b>	<b>WEDS.</b> <b>Apr. 10</b>	<b>Both labs meet together as one group</b> for the exam.
#11 Flipped Drug Scenarios	Apr. 17	
<b>Oxygenation Interpretation Quiz Due</b>	Apr. 18	
<b>Clinical Orientation Meeting</b> <b>EVERYBODY: 1 - 5 pm</b>	<b>MON.</b> <b>Apr. 22</b>	<b>Both labs meet together as one group</b> for this meeting.
<b>Clinical Orientation Meeting</b> <b>EVERYBODY: 1 -4 pm</b>	<b>WED.</b> <b>Apr. 24</b>	<b>Both labs meet together as one group</b> for this meeting tentative location: <b>HLC 204</b>