Broward Community College
Course Outline

STATUS: A

COMMON COURSE NUMBER: NUR 2941C

COURSE TITLE: Respiratory Care For Nurses: Oxygen Treatment

CREDIT HOURS: **2**

CONTACT HOURS BREAKDOWN:

Lecture/Discussion	16
Lab	4
Other	24
Contact Hours	44

CATALOG COURSE DESCRIPTION:

This course will teach the students safe handling of oxygen equipment along with a working knowledge of oxygen analyzers. It will also teach proper administration of medications via Twin Jet nebulizer, metered dose inhaler (MDI) and incentive spirometry treatments.

Prerequisite:
Corequisite:

General Education Requirements - Associate of Arts Degree, meets Area(s): none
General Education Requirements - Associate in Science Degree, meets Area(s): none

UNIT TITLES:

1. **Oxygen Delivery Devices**
2. **Routine Respiratory Care**

I. Course Overview:

This course will provide nurses with the necessary essential knowledge and skills of oxygen therapy.

II. Units

Unit 1. Oxygen Delivery Devices

General Outcome:

1.00 The student will demonstrate safe handling of oxygen equipment. Demonstrate a clinical knowledge of and psychomotor ability to administer oxygen via the different oxygen delivery devices.

Specific Learning Outcomes:

Upon successful completion of this unit, the students should be able to:

1.1 Demonstrate how to properly change the regulator on an oxygen E-cylinder, stating the PSIG in the tank and calculating the duration of gas flow at various settings.

1.2 Demonstrate a working knowledge of air and oxygen flow meters.

1.3 Demonstrate how to correctly fill a portable liquid oxygen cylinder, determining the volume of oxygen in the cylinder and estimating the duration of gas flow at various settings.

1.4 Demonstrate a working knowledge of setting up and maintaining humidification devices.

1.5 Demonstrate a clinical knowledge of administering oxygen via the following devices: Nasal cannula; Nasal catheter; Venti-mask; Simple mask; Partial and non-rebreather mask; Face tent; Tracheostomy mask; Transtracheal catheter.

1.6 Demonstrate ability to deliver oxygen via resuscitator bag and mask, stating the factors which influence delivered F_i02 via that device.

1.7 State the approximate F_i02 delivered via the various oxygen delivery devices at various settings.

1.8 State how a Venti-mask works and identify the venturi device.

1.9 State the dependent factors affecting F_i02 when delivering oxygen via nasal cannula and how those factors effect F_i02.

1.10 Determine the most appropriate oxygen delivery device for a given set of clinical circumstances.

1.11 Demonstrate correct use of oxygen analyzers including calibration, operation and troubleshooting.

Unit 2. Route Respiratory Care

General Outcome:

2.0 The student will demonstrate proper patient teaching and administration of medications via Twin Jet nebulizer, via metered dose inhaler (MDI), and incentive spirometry treatments.

Specific Learning Outcomes:

Upon successful completion of this unit, the students should be able to

2.1 Identify the clinical indications for and the goals and objectives of administering medications via Twin Jet nebulizer.

2.2 Compare four(4) common bronchodilators.

2.3 Discuss the use of inhaled mucolytics, anti-inflammatories, antibiotics and antiprotozoans.

2.4 State the normal dosages and possible side effects of medications commonly used in Twin Jet nebulizer treatments.

2.5 Contract wheezing with rales & rhonchi.

2.6 Demonstrate how to properly adminstrer a Twin Jet treatment for maximum effectiveness.

2.7 Determine if MDI administration is indicated in place of Twin Jet nebulizer.

2.8 Instruct the patient in proper use of the MDI with spacer device.

2.9 State the importance of using a spacer device with all MDI treatments.

2.10 State the different medications available via MDI, their normal dosage ranges and possible side effects.

2.11 Determine how full (or empty) an MSI canister is.

2.12 Identify the clinical indications for and the goals and objectives of incentive spirometry.

2.13 Demonstrate correct use of the Voldyne incentive spirometry device for maximum effectiveness.

2.14 Set the patient's inspiratory capacity goal.

2.15 Demonstrate three coughing techniques used to improve expectoration.

2.16 Properly assess the patient before, during and immediately after performing all therapies.