

#### BRITISH COLUMBIA INSTITUTE OF TECHNOLOGY

School of Health Sciences Program: Nursing Option:

#### Course Outline Part A

# NURS 3020 Clinical Techniques 3 — Laboratory

Hours/Week: Lecture: Lab: Other:	2 1 1	Total Hours: Total Weeks:	34 17	Term/Level:4Credits:2
Prerequisite		NURS	3020	is a Prerequisite for:
Course No.	Course Name	Cours	e No.	Course Name
NURS 2020	Clinical Techniques 2	NURS or	4530	Nursing Practicum 5
		Nurs 7 <b>and</b>	030	Nursing Practicum in a Specialty Unit
		Nurs 7	070	Nursing Practicum in the Community
Corequisite				
Course No.	Course Name			
NURS 4030	Nursing Practicum 4			

#### **Course Goals**

This course facilitates student learning of particular hands-on nursing skills used in professional nursing practice.

### **Course Description**

This laboratory course presents nursing skills related to intermittent infusion devices, complex wound care, nasogastric and gavage tube insertion and care, central intravenous therapy, medication administration by IV push, catheterization, use of blood glucose monitors, administration of blood products, chest drainage, systems, pain management therapies and neurological assessment. Emphasis is placed on: student understanding regarding the purpose of the skill, focused assessment related to the skill and safe and confident demonstration of the skill. The communication and research aspects of the skills are also included. Independent and laboratory practice, demonstrations and examinations are part of the course.

### **Evaluation**

Written assignment	20%	All evaluation components must be completed to pass the course.
Skill demonstration	30%	
Multiple choice exam	50%	
TOTAL	100%	

The student will:

- 1. describe the purpose of skill to the patient.
- 2. describe the safety principles for all nursing skills.
- 3. prepare a focused assessment of the patient related to the skill.
- 4. demonstrate selected skills competently and confidently while maintaining patient comfort.
- 5. demonstrate the communication aspects of nursing skills.
- 6. demonstrate responsibility for attaining and maintaining a safe level of skill performance.
- 7. plan patient teaching related to the skill.
- 8. think and reflect about nursing skills by:
  - 8.1 demonstrating awareness of the research base associated with the skills.
  - 8.2 recognizing the real potential risks associated with the skills.
  - 8.3 making judgements about the skill considering the context.

This course facilitates student growth in relation to these graduate outcomes:

- Professionalism recognizing necessity to use sound assessment and clinical judgement in relation to skill performance, accountability in carrying out skills safely while considering contextual and individual needs, adherence to the standards for nursing practice in B.C.
- Communication the use of written, verbal, non-verbal and information technology for communication documentation and patient teaching using relevant vocabulary as relates to skills.
- Systematic Inquiry increased awareness of relevant research related to skill performance, use of a variety of sources to understand what evidence supports skill protocols, questioning and reflection about clinical techniques.
- Learning individual responsibility in how skills are learned, practiced and demonstrated.
- Creative Leadership decision making, risk management, priority setting, collaboration with other health care
  professionals.

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• Technical Skills — competency with the hands-on skills nurses use in their daily practice.

### **Course Record**

Developed by:

Revised by:

Instructor Name and Department (signature)

Instructor Name and Department

Date:	June 9/97	
Date:	June 9/98	

Approved by:

Associate Dean / Program Head (signature)

Start Date:



BRITISH COLUMBIA INSTITUTE OF TECHNOLOGY

School of Health Sciences Program: Nursing Option: Course Outline Part B

# NURS 3020 Clinical Techniques 3 — Laboratory

# Effective Date

August, 1998

# Instructor(s)

Cathy Hine	Office No.:	SE12-418	Phone:	432-8907
	Office Hrs.:	By appointment		

# Text(s) and Equipment

Required:

One of the following Nursing Fundamental Textbooks:

Craven, R.F. & Hirnle, C.J. (1996). Fundamentals of nursing: Human health and function (2nd ed.). Philadelphia: Lippincott Co.

Dugas, B.W. & Knor, E.R. (1995). Nursing foundations: A Canadian perspective. Scarborough, Ontario: Appleton & Lange, Canada.

A clinical skills textbook is required. The following is recommended:

Elkin, M.K., Perry, A.G. & Potter, P.A. (1996). Nursing interventions and clinical skills. Toronto: Mosby.

### **Course Notes (Policies and Procedures)**

- 1. Course delivery and evaluation methods will be discussed during the first week of the class.
- 2. Clinical techniques will be practiced during laboratory periods. Selected techniques will be tested at specific times noted on the class schedule.

# Participation/Attendance

- 1. Regular attendance in class and practice labs is expected. (Refer to BCIT Policy related to Attendance.) Students may be recommended for a failing grade if absent more than 10% of the time.
- 2. Students are responsible for content of a missed class.

# **Assignment Details and Evaluation Methods**

1. Written Assignment

Assignment is worth 20% of total final grade

This assignment is a 3–4 page, typewritten, double-spaced paper. It is an individual project designed to provide an opportunity for the student to consider the application of nursing research to his/her own practice.

- Select a current (1990s) article describing a research study that relates to one of the Level IV Clinical Techniques 3 skills.
- Relate the discussion, findings and implications of the research study to your personal experience in a practicum area.
- Describe how (or if) the nursing research is being applied in clinical practice.
- Base your discussion on an actual hands-on situation or a situation you observed.
- Use resources such as fundamentals and skills textbooks, hospital policy and procedure manuals, and the experience of the nurses and clinicians to support your discussion.
- Identify the strengths and limitations of the application of the research in the practice setting.

# **Marking Criteria**

A. Format: An introduction clearly defines the topic and intent of the paper. 5 Marks A body logically presents the discussion. A conclusion summarizes the paper. • Correct grammar, spelling, and sentence structure is used. References and quotations are documented using APA format. • Paper is typewritten or word processed and within the page limit. A copy of the research article is attached to the paper. B. Contents There is a direct relationship between the study chosen and one of the skills 10 Marks included in this course. The research study is briefly (one to two paragraphs) summarized. Paragraphs are internally logical and have a clear relationship to one another. ٠ The research findings and implications for nursing practice are applied to a student's personal clinical experience. This discussion is supported by reference to resources. C. Strengths and The strengths and limitations of the research as they apply to nursing practice are . Limitations discussed. 5 Marks Implications for further research are considered. Total Marks: 20

Due Date: October 7, 1998

#### 2. Skill Demonstration

Skill Testing is worth 30% of total final grade

Skill demonstration weeks are noted on the course schedule. Students will be evaluated on their ability to demonstrate safe and competent **catheterization** in a simulated laboratory situation. Demonstration of the technique will be graded according to the specific criteria included in the course outline. A score out of 30 will be assigned to the student by the evaluator.

#### 3. Multiple Choice Exam

Exam is worth 50% of total final grade

A multiple choice exam will be given during examination week. The questions will be based on all the skills covered in NURS 3020 — Clinical Techniques 3.

#### **Summarization of Evaluation:**

Written Assignment	20%
Skill Demonstration	30%
Multiple Choice Exam	50%
Total	100%



BRITISH COLUMBIA INSTITUTE OF TECHNOLOGY

School of Health Sciences Program: Nursing Option: Schedule and Study Guide

# NURS 3020 Clinical Techniques 3 — Laboratory

Week	Clinical Technique	Preparation/Learning Activity	Assignments
1	<ul> <li>A. Introduction to NURS 3020</li> <li>Review of course outline</li> <li>Discussion of evaluation methods</li> <li>B. Problem Solving Laboratory Activity</li> <li>Skill review</li> </ul>	Preparation for this activity is required. The directions and case study are provided at the end of this package.	
	<ul><li>C. Blood Glucose Monitoring</li><li>Independent study</li></ul>	Supplemental reading material attached. Certification by Practicum instructor.	
2	IV Therapy Part I	Readings	
	<ul> <li>A. Intermittent Infusion Devices (Saline Locks)</li> </ul>	Use your recommended Nursing Fundamentals and Nursing Skills texts.	
	An intermittent infusion device or saline lock is used when a client is to receive solutions or medications intermittently.	In Class	
	An intermittent infusion device may be connected to the IV cannula when the IV is initiated or a continuous IV line may be converted to an intermittent infusion	Video — Converting IV to intermittent infusion device (BCIT 1997)	
	device. Focus your reading on the following:	Practice Activity — in lab practice converting a continuous IV line to an	
	<ul> <li>purposes and uses of intermittent infusion devices</li> <li>equipment required for conversion of IV to intermittent infusion device</li> </ul>	intermittent infusion device, and reverse. Practice administering an IV medication using a minibag, an auxiliary unit, and an intermittent	
	<ul> <li>procedure for conversion</li> <li>safety and comfort measures</li> <li>documentation</li> <li>patient teaching</li> <li>assessment before, during and after procedure</li> </ul>	infusion device.	

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<ul><li>IV Therapy Part I</li><li>B. Medication Administration Through an Intermittent Infusion Device Using an Auxiliary IV Unit</li></ul>		
Intermittent Infusion Device Using an		
An intermittent infusion device may be used to administer medications by minibag.		
Focus on the following:		
<ul> <li>review medication administration via minibags (Clinical Techniques 2)</li> <li>procedure for initiating, maintaining and disconnecting the auxiliary flush system and the intermittent infusion device</li> <li>maintaining the patency of the intermittent infusion device</li> <li>assessment before, during and after the procedure</li> </ul>		
IV Therapy Part II	Readings	
Central Venous Catheters Increasingly, in acute care settings,	Use your recommended Nursing Fundamentals and Nursing Skills texts to prepare.	
therapies and nutritional solutions through central venous catheters (CVCs)	In Class	
-	Video — CVCs (BCIT 1994)	
guide your research and preparation prior to class:	Practice Activity — two scenarios for assessment, practice and discussion will be	
<ul><li> purposes of CVCs</li><li> types of CVCs</li></ul>	set up.	
<ul> <li>assisting with insertion of a CVC*</li> </ul>	In Practicum	
<ul> <li>care and maintenance of a CVC</li> <li>infusions</li> <li>medication administration</li> </ul>	Explore what types of CVCs are used in your clinical area.	
1	<ul> <li>review medication administration via minibags (Clinical Techniques 2)</li> <li>procedure for initiating, maintaining and disconnecting the auxiliary flush system and the intermittent infusion device</li> <li>maintaining the patency of the intermittent infusion device</li> <li>assessment before, during and after the procedure</li> <li><b>V Therapy Part II</b></li> <li>Central Venous Catheters</li> <li>Increasingly, in acute care settings, patients are receiving intravenous therapies and nutritional solutions through central venous catheters (CVCs) inserted into large central veins.</li> <li>Focus on the following key points to guide your research and preparation prior to class:</li> <li>purposes of CVCs</li> <li>types of CVCs</li> <li>assessment of a patient with a CVC</li> <li>care and maintenance of a CVC</li> </ul>	<ul> <li>review medication administration via minibags (Clinical Techniques 2)</li> <li>procedure for initiating, maintaining and disconnecting the auxiliary flush system and the intermittent infusion device</li> <li>maintaining the patency of the intermittent infusion device</li> <li>assessment before, during and after the procedure</li> <li>W Therapy Part II</li> <li>Central Venous Catheters</li> <li>Increasingly, in acute care settings, patients are receiving intravenous therapies and nutritional solutions through central venous catheters (CVCs) inserted into large central veins.</li> <li>Focus on the following key points to guide your research and preparation prior to class:</li> <li>purposes of CVCs</li> <li>assessment of a patient with a CVC</li> <li>care and maintenance of a CVC</li> <li>infusions</li> </ul>

Week	Clinical Technique	Preparation/Learning Activity	Assignments
3 (cont'd)	IV Therapy Part II		
(00 0)	<ul> <li>exit site dressing change*</li> <li>establishing and maintaining a heparin loc on a CVC*</li> </ul>	Note related policies, procedures and documentation protocols.	
	<ul> <li>potential complications (septicemia, air embolism, occlusion, hemorrhage, pneumothorax, injury to brachial plexus)</li> <li>prevention of complications</li> <li>roles and responsibilities of students caring for a patient with CVC</li> <li>optional and not examinable reading</li> </ul>	* Review "Student Guidelines, Policies and Procedures in the Nursing Program."	
4	IV Therapy Part III	Readings	
	Medication Administration by IV Push	Nursing Fundamentals and Nursing Skills texts.	
	Medications delivered by IV push involve the introduction of a concentrated dose of medication directly into the patients' systemic circulation. IV push medications	Supplemental Reading — BCIT (1997) (attached)	
	may be administered via an established intravenous infusion line or via an	In Class:	
	intermittent infusion device.	Video — IV Push (BCIT 1991)	
	The IV push procedure is clearly described in your texts; however, important observations	Practice Activities — four	
	and safety aspects of this route of administration are provided for you as supplementary reading.	different clinical scenarios present opportunities to assess, prepare and administer a variety of IV push medications through:	
		<ul> <li>an existing IV</li> <li>an intermittent infusion device</li> </ul>	

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Week	Clinical Technique	Preparation/Learning Activity	Assignments
4	IV Therapy Part III		
(cont'd)	Focus your preparation on the following key points:		
	<ul> <li>purposes of medication administration by IV push</li> <li>assessment before, during and after procedure</li> <li>equipment required</li> <li>procedure <ul> <li>IV push through an existing IV line</li> <li>IV push through an intermittent</li> </ul> </li> </ul>		
	<ul> <li>infusion device</li> <li>organization of the work environment</li> <li>essential safety features</li> <li>patient teaching</li> </ul>		
5	IV Therapy Part IV	Readings	
	Blood Administration	Use your recommended Nursing Fundamentals and Nursing Skills	
	The administration of whole blood or blood components, such as plasma, red blood cells or platelets, into the venous circulation is called a blood transfusion. Focus your reading on the following:	texts to prepare. Articles: (library reserve) Fitzpatrick, L. & Fitzpatrick, T. (1997). Blood transfusion: keeping your patient safe. Nursing '97. August.	
	• purposes of blood transfusions, typing and crossmatching	In Class	
	<ul> <li>types of blood products</li> <li>adverse reactions to blood</li> </ul>	Video	
	<ul> <li>adverse reactions to blood transfusions</li> <li>equipment required for administration</li> <li>assessment of a patient before, during and after a transfusion</li> </ul>	Practice Activity — prepare and administer a blood transfusion: check identification prime Y-set, regulate rate, discuss potential reactions and patient teaching.	
	• procedure for administering a blood transfusion	In Practicum	
	<ul><li> documentation</li><li> patient teaching</li></ul>	Locate and read a type and crossmatch requisition in a patient chart.	
		Note the specific policies and procedures for blood and blood products transfusions in your practicum agency.	

Week	Clinical Technique	Preparation/Learning Activity	Assignments
6	Shinerama	No Lab	
7	Complex Wound Management	Readings	
7	<ul> <li>Simple dressings are used when healing is occurring by primary intention. When factors interfere with normal wound healing, a wound must heal by secondary intention.</li> <li>Complex wound management involves strategies that promote healing by secondary intention.</li> <li>Use your readings to research the following: <ul> <li>phases of wound healing</li> <li>secondary vs primary intention healing</li> <li>factors which impact wound healing</li> <li>systemic</li> <li>local</li> </ul> </li> <li>wound assessment <ul> <li>local</li> <li>wound assessment</li> <li>color: red, yellow, black</li> <li>staging: I, II, III, IV, Eschar (V)</li> <li>type and amount of exudate</li> <li>condition of surrounding skin</li> <li>pain</li> </ul> </li> <li>principles of wound management/topical therapies</li> <li>types of topical therapies (dressings)</li> <li>criteria for selection of appropriate therapy</li> <li>procedure for changing dressing using sterile and non-sterile gloving</li> <li>procedure for obtaining a wound culture</li> <li>safety and comfort considerations</li> </ul>	ReadingsNursing Fundamentals and Nursing Skills texts.Articles: (library reserve)Frantz, R.A. & Gardner, S. (September, 1994). Elderly skin care: Principles of chronic 	
	<ul><li> patient teaching</li><li> documentation</li></ul>	Identify the stage and characteristics, and determine the appropriate topical therapy for each.	

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Week	Clinical Technique	Preparation/Learning Activity	Assignment
8	Pain Management	Readings	Written
	Subautone and Dutte flu	Numine Evendomentals and	Assignment Due
	<ul><li>Subcutaneous Butterfly</li><li>Patient Controlled Analgesia (PCA)</li></ul>	Nursing Fundamentals and Nursing Skills texts.	Due
	<ul> <li>Epidural Infusions</li> </ul>	Nurshig Skins texts.	
		Articles: (library reserve)	
	Pain is classified as either acute or chronic.	· · · · · · · · · · · · · · · · · · ·	
	Since freedom from pain is not always a	Janowski, M.J. (September,	
	realistic option, the goal of pain management	1995). Managing cancer pain.	
	may need to be pain control rather than pain	<i>RN</i> , 30–32.	
	relief.		
		Pasero, C. (1996). PCA: For	
	Read about the following:	patients only. American	
		Journal of Nursing, 96(9),	
	Acute and Chronic Pain	22–23.	
	Pain Assessment and Management		
	Pain Management for: Elderly	Pasero, C. & McCaffrey, M.	
	Cognitively Impaired	(1994). Avoiding opioid-	
	Substance Abusers	induced respiratory depression.	
	Non pharmacological and Pharmacological	American Journal of Nursing,	
	Non-pharmacological and Pharmacological Interventions for Pain	94(4), 25–30.	
		Pasero, C. & McCaffrey, M.	
	Subcutaneous Butterfly	(1996). Managing	
	Succumicous Buttering	postoperative pain in the	
	• purpose and rationale for use of	elderly. American Journal of	
	subcutaneous butterfly	Nursing, 96(10), 38–46.	
	• equipment required		
	assessment before, during and after	In Class	
	<ul> <li>safety and comfort considerations</li> </ul>		
	• patient teaching	Video	
	documentation		
		In Practicum	
rrranoortar var	Patient Controlled Analgesia (PCA)		
		Check your BCIT guidelines	
	• purpose and rationale for use of PCA	for students to find out what	
	equipment required to administer PCA	your responsibilities and	
	• assessment before, during and after	limitations are when caring for	
	<ul> <li>safety and comfort considerations</li> <li>patient teaching</li> </ul>	a patient with either PCA or	
	<ul><li> patient teaching</li><li> documentation</li></ul>	epidural infusions.	
	Epidural Infusion		
	• purpose and rationale for use of epidural		
	infusions of analgesia		
	equipment required		

Week	Clinical Technique	Preparation/Learning Activity	Assignments
9	Nasogastric Intubation and Maintenance	Readings	
	Nasogastric intubation refers to the placement of a flexible tube, through the nares, nasopharynx and esophagus, into the stomach. The nasogastric tube may be used for decompression, nutrition/medications,	Nursing Fundamentals and Nursing Skills texts. Article: (library reserve)	
	lavage or diagnosis. Focus your reading on the following:	Viall, C.D. (September, 1996). Location, location, location: When your patient has an NG tube, what's the most	
	<ul> <li>purposes of nasogastric intubation</li> <li>types of nasogastric tubes (Levin, Salem, feeding, sizing, materials)</li> <li>equipment required</li> </ul>	important thing? <i>Nursing 96</i> , 43–45.	
	<ul> <li>assessment before, during and after the procedure</li> </ul>	In Class	
	<ul> <li>procedure for inserting a nasogastric tube – methods of checking placement of tube</li> </ul>	Video — NG Intubation (BCIT 1995)	
	<ul> <li>irrigation of a nasogastric tube <ul> <li>purpose</li> <li>assessment</li> <li>equipment</li> <li>procedure</li> </ul> </li> <li>removal of a nasogastric tube</li> <li>patient teaching</li> <li>documentation</li> </ul>	Practice — opportunities for you to practice NG intubation, irrigation and removal on lab mannequins.	

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Week	Clinical Technique	Preparation/Learning Activity	Assignments
10	Catheterization	Readings	
10	Catheterization Catheterization of the urinary bladder is the introduction of a catheter tube through the urethra and into the bladder. This provides a means for continuous bladder emptying. Your preparation for this lab should include the following: • purposes for urinary catheterization • types of catheterization - intermittent (in and out) - in-dwelling (foley) • equipment required • assessments before, during and after catheterization • safety and comfort considerations • procedure for catheterization - organization of the work environment • patient teaching • documentation	ReadingsNursing Fundamentals and Nursing Skills texts.Articles: (library reserve)McConnell, E. (1995). Clinical dos and don'ts: Inflating an indwelling urinary catheter balloon. Nursing 95, Dec. p. 13 McKinney, B. (1995). Cut your patient's risk of nosocomial UTI. RN. Nov. pp. 20–23.In ClassVideo — Basic Clinical Skills: Urethral Catheterization (BCIT 1995)Practice — male and female catheterization in simulated lab situations.*NB: You will be required to demonstrate your competency with catheterization (male or	
		female) in week 15 or 16. Skill demonstration is worth 30% of your final grade for this course. The criteria used for evaluation of your skill demonstration is	
		included at the end of the course outline.	

Week	Clinical Technique	Preparation/Learning Activity	Assignments
13	Chest Drainage Systems	Readings	
	Trauma, disease or surgery can interrupt the closed negative pressure system of the lungs,	Nursing Skills text.	
	causing lung collapse. A chest tube is inserted and a closed chest drainage system is	In Class	
	attached to promote drainage of air and fluid and re-expansion of the lung.	Video — Chest Drainage. Springhouse Corporation (1991)	
	<ul> <li>The following key points will guide your preparation for this lab:</li> <li>purposes of chest drainage systems</li> <li>types of chest tubes and chest drainage containers <ul> <li>one, two and three bottle systems</li> <li>water seal systems</li> <li>water seal systems</li> </ul> </li> <li>assessment before, during and after insertion of a chest tube</li> <li>set up of water seal and waterless systems</li> <li>procedure for assisting with insertion of a chest tube</li> <li>procedure for caring for a patient with a chest tube</li> <li>problems and complications related to chest drainage</li> </ul>	(1991) Practice — opportunity to examine equipment, carry out assessments and troubleshoot problems in two simulated practice situations.	
	<ul> <li>safety and comfort considerations</li> <li>assessment before, during and after removal of a chest tube</li> <li>procedure for assisting with removal of a chest tube</li> <li>patient teaching</li> <li>documentation</li> </ul>		

Week	Clinical Technique	Preparation/Learning Activity	Assignments
14	Tracheostomy Care	Readings	
	A tracheostomy is a surgical incision into the trachea to insert a tube through which the patient can breathe more easily and secretions	Nursing Fundamentals and Nursing Skills texts.	
	can be removed.	In Class	
	Preparation for this lab should include reading about the following:	Video — Tracheostomy Care (BCIT 1988)	
	<ul> <li>purposes of a tracheostomy</li> <li>types of tracheostomy tubes</li> <li>assessment of a patient with a tracheostomy</li> <li>equipment required for tracheostomy care</li> <li>procedure for tracheostomy care         <ul> <li>suctioning</li> <li>removing, cleaning and replacing inner cannula</li> <li>changing tracheostomy dressing</li> <li>changing neck ties</li> </ul> </li> <li>safety and comfort considerations         <ul> <li>patient teaching</li> <li>documentation</li> </ul> </li> </ul>	Practice — in simulated patient situations practice tracheostomy tube suctioning and tracheostomy care (cleaning inner cannula, changing dressing and ties).	
15 & 16	Skill Demonstration: Catheterization         Students will sign up for skill testing on one of the two weeks.         Evaluation of skill performance is based on the following criteria:         • medical asepsis         • surgical asepsis         • organization         • safety         • comfort         • communication	Students are encouraged to review the principles and procedures for catheterization and to utilize free labs practice time to prepare for skill testing.	
17	EXAM WEEK Date, time and location of exam — TBA		Multiple Choice Exam



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