

SAULT COLLEGE OF APPLIED ARTS AND TECHNOLOGY

SAULT STE. MARIE, ONTARIO



COURSE OUTLINE

COURSE TITLE: Institutional Pharmacy Dispensing Lab

CODE NO. : PTN 302 **SEMESTER:** 3

PROGRAM: Pharmacy Technician

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DATE: Sept. 2012 **PREVIOUS OUTLINE DATED:** N/A

APPROVED: "Marilyn King" Jan/13

	CHAIR, HEALTH PROGRAMS	DATE
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TOTAL CREDITS: 10

PREREQUISITE(S): PTN101, PTN102, and PTN202

HOURS/WEEK: Lab 3 hours per week plus fieldwork (60 hours total)

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For additional information, please contact the Chair, Health Programs
School of Health Wellness and Continuing Education
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1. COURSE DESCRIPTION:

This course will provide students with an introduction to hospitals and other health care organizations. Important elements of these studies will be the legislation governing hospital and other institutional pharmacies. Students will learn the roles of the hospital pharmacist, pharmacy technician and other health care professionals. An emphasis will be placed on examining the various distribution models, re-packaging and developing the skills required to efficiently and accurately dispense in each model. Communication and operating systems within the institutional setting will be examined. Students will be apprised of agency accreditation programs, quality assurance, policy and procedures, and medication utilization reviews. Infection control, risk management and patient safety procedures within the institutional setting will also be covered.

This course is designed to enable students to attain competencies specified in the National Association of Pharmacy Regulatory Authorities (NAPRA) Professional Competencies for Canadian Pharmacy Technicians at Entry to Practice September 2007.

(Note: *The following is a summary only. Please consult the original documents at www.napra.ca***)**

PRODUCTS.

This course is designed to enable students to meet and maintain the standards of practice expected within the pharmacy technician's role. The standards are specified in the National Association of Pharmacy Regulatory Authorities (NAPRA) Model Standards of Practice for Canadian Pharmacy Technicians. November 2011. (Full document available at www.napra.ca)

II. LEARNING OUTCOMES AND ELEMENTS OF THE PERFORMANCE:

Upon successful completion of this course, the student will demonstrate the ability to:

1. Demonstrate technical procedures for preparing, storing, record keeping and dispensing drugs in a variety of drug distribution models commonly found in institutional settings

Potential Elements of the Performance:

- Dispense the medications correctly according to medication delivery system needed, determining drug packaging and labeling requirements for traditional, unit dose, card system, Individual patient supply, unit stock or automated dispensing
- Perform batch repackaging, unit dose repackaging with appropriate labelling and good manufacturing practices
- Practice good time management skills with an emphasis on prioritizing duties
- Be familiar with centralized and decentralized pharmacies models
- Apply the principles of "The Five Rights" of medication safety
- Identify all the key information needed in order to process prescriptions electronically, including the prescription components, patient profile, physician profile and drug file.
- Demonstrate mathematical skills in calculating the dosage, quantity to be dispensed and days' supply with consistency and accuracy.

2. Demonstrate technical procedures for repackaging, preparing, storing, record keeping and stocking drugs in a variety of drug distribution models commonly found in institutional settings

Potential Elements of the Performance:

- Perform batch repackaging, unit dose repackaging with appropriate labelling and good manufacturing practices
- Practice good time management skills with an emphasis on prioritizing duties
- Compare and contrast a variety of distribution models
- Demonstrate accuracy and consistency in preparing and independently checking emergency drug boxes and other items of special control
- Demonstrate mathematical skills in calculating the dosage, quantity to be dispensed and days' supply with consistency and accuracy

3. Demonstrate technical accuracy and excellence in process prescriptions using hospital pharmacy software

Potential Elements of the Performance:

- Describe the layout of the computing system, including patient profile, physician profile and drug file.
- Process prescriptions with the computer software with accuracy and completeness of database entry
- Utilize the relevant resources (e.g. CPS, Ontario Drug Benefit Formulary, regulated dosing times, formulary substitutions, IV manuals wardstock and ADC stock) found in a hospital or institutional pharmacy appropriately to ease the prescription processing (e.g. drug schedules, drug interchangeability etc..).

4. Apply knowledge of Inventory management and perform purchasing ,receiving, stock storage and rotation functions

Potential Elements of the Performance:

- Maintain computer inventory
- Receiving and unpacking orders
- Follow procedures for proper storage, handling, stock rotation and management of expired products
- Articulate the SAP process
- Explain the role of wholesalers and group purchasing organizations
- Demonstrate the roles and responsibility of managing a back order
- Follow policy and procedure for identification, mitigation and management of controlled medication diversion

5. Apply legal, ethical and professional principles to all aspects of dispensing

Potential Elements of the Performance:

- Understand and work within the scope of practice of Pharmacy Technician
- Demonstrate personal and professional integrity
- Understand the Public Hospitals Act and contrast pharmacy practice in hospital compared to community practice

6. Describe the role and structure of the hospital and other institutions within the Canadian health care system

Potential Elements of the Performance

- Understand the funding models and pharmacoeconomics of health care
- Describe the institutional structure and the unique and interdependent roles and responsibilities of various professions and committees on the medication management process
- Recognize quality assurance programs and professional associations, with emphasis on how they change best practice
- Describe the role of the Medical Advisory Committee, Pharmacy & Therapeutics and the Ontario Hospital Association

7. Define the importance of Infection control and prevention and other patient quality improvement measures

Potential Elements of Performance

- Understand the concepts of infection control and prevention
- Describe antibiotic stewardship, microbial surveillance, and nosocomial infections and management strategies
- Exhibit hand hygiene and illustrate the 4 moments care and understand the role and responsibility of the technician
- Convey Accreditation Canada's Required Organizational Practices as it relates to medication management and understand the role of the pharmacy technician in its success
- Explain the role of medication occurrence reporting and understand the review, analysis and recommendations implemented as a result
- Understand the role and recognize the value of Institute of Safe Medication Practices Canada (ISMP-Canada) Healthcare Insurance Reciprocal of Canada (HIROC) and Ontario Hospital Association (OHA)

III. TOPICS:

1. Introduction role of Hospitals in the healthcare setting

- Overview of the healthcare system and role of hospitals
- Provincial funding structures and hospital classifications
- Alternative Institutions structures and Ministry funded programs
- Hospital outpatient models
- Hospital Organization

2. Hospital Pharmacy Department Structure and Services

- Roles and responsibilities of Pharmacy Technician
- Roles and responsibilities of Pharmacist
- Roles and responsibilities of Pharmacy Assistants and support staff
- Differentiate between scope and delegated duties
- Explore the interdepartmental relationships
- Review role of P&T

3. Drug Distribution of items with special control

- Understand areas of special control
- Automatic stop orders
- Medication administration times
- Automatic substitution
- Automated Dispensing Cabinets
- Narcotics and Controlled substances

4. Prescription Processing

- Unit dose prescription processing
- Unit dose workflow
- Responsibilities of the Technician and Pharmacist in unit dose system
- Cart fills
- Traditional dose prescription processing
- Traditional dose workflow
- Refill lists
- Responsibility of the Technician & Pharmacist in traditional system
- Unit Stock prescription processing
- Unit Stock workflow
- Responsibilities of the Technician and Pharmacist in unit stock system
- Carded dose prescription processing
- Carded dose workflow
- Responsibilities of the Technician and Pharmacist in carded system

5. Repackaging

- Repackaging and labelling narcotics
- Repackaging and labelling unit dose
- Role of bar coding
- Repackaging and labelling oral solids
- Repackaging and labelling oral liquids
- Repackaging storing considerations for specialty populations

6. Purchasing and Receiving and Inventory Management

- Formulary items and non-formulary procedures
- Special Access Medications, purchasing receiving, proper record keeping
- Investigation drug management
- Concepts of inventory management
- Group Purchasing Organizations and Contracts
- Receiving and unpacking orders
- Drug Recall Management
- Expired and short dating medication management

7. Quality Assurance Programs

- Medication Reconciliation
- Medication Occurrence Reporting
- Narcotic Discrepancies and management
- Quality Control and monitoring
- Adverse Drug Reaction Reporting
- Drug Information Resources
- Drug utilization review
- Accreditation Canada organizational practices
- Infection control and prevention
- Hand hygiene

IV. REQUIRED RESOURCES/TEXTS/MATERIALS:

Hospital Pharmacy Procedures for Pharmacy Technicians – Latest Edition, Marie Atlas, Audrey Faris. Pharmacy Tech. Consultants Ltd. ISBN: 978-0-9810411-6-2

Introduction to Pharmaceutical Dosage Forms for Pharmacy Technicians, 2008-2009- Marie Atlas and Audrey Faris. Pharmacy Tech. Consultants Ltd. ISBN: 978-0-98104411-2-4

V. EVALUATION PROCESS/GRADING SYSTEM:

Assignment (4 @ 5%)	20%
Quizzes (2 @ 10% each)	20%
Labs – (4 @ 10%)	40%
Final exam	20%
Total	100%

Institutional Dispensing Math Test	pass/fail
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1. Success in passing this course requires an overall course grade of 60% after completion of ALL components of the course including a pass mark for the Institutional Dispensing Math Test.
2. The pass mark for the course is 60%. The total grade is composed of marks accumulated as indicated above.
3. All policies and procedures as outlined in the current Student Success Guide related to submitting assignments, scholarly work/academic honesty, tests and examinations.
4. **No supplements** will be provided for tests.

The following semester grades will be assigned to students:

<u>Grade</u>	<u>Definition</u>	<u>Grade Point Equivalent</u>
A+	90 – 100%	4.00
A	80 – 89%	
B	70 - 79%	3.00
C	60 - 69%	2.00
D	50 – 59%	1.00
F (Fail)	49% and below	0.00
CR (Credit)	Credit for diploma requirements has been awarded.	
S	Satisfactory achievement in field /clinical placement or non-graded subject area.	
U	Unsatisfactory achievement in field/clinical placement or non-graded subject area.	
X	A temporary grade limited to situations with extenuating circumstances giving a student additional time to complete the requirements for a course.	
NR	Grade not reported to Registrar's office.	
W	Student has withdrawn from the course without academic penalty.	

NOTE: Mid Term grades are provided in theory classes and clinical/field placement experiences. Students are notified that the midterm grade is an interim grade and is subject to change.

Note: For such reasons as program certification or program articulation, certain courses require minimums of greater than 50% and/or have mandatory components to achieve a passing grade.

A minimum of a “C” grade is required to be successful in all PTN coded courses.

It is also important to note, that the minimum overall GPA required in order to graduate from a Sault College program remains 2.0.

VI. SPECIAL NOTES:

Attendance:

Sault College is committed to student success. There is a direct correlation between academic performance and class attendance; therefore, for the benefit of all its constituents, all students are encouraged to attend all of their scheduled learning and evaluation sessions. This implies arriving on time and remaining for the duration of the scheduled session.

VII. COURSE OUTLINE ADDENDUM:

The provisions contained in the addendum located on the portal form part of this course outline.