



## 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. 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 (March 2014).** (Full document available at [www.napra.ca](http://www.napra.ca))

**This course is designed to enable students to attain the educational outcomes specified in the Canadian Pharmacy Technician Educators Association (CPTEA) Educational Outcomes for Pharmacy Technician Programs in Canada (March 2007).** (Full document available at [www.cptea.ca](http://www.cptea.ca))

**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](http://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 dispensing medication (including preparing, storing, record keeping) in a variety of distribution models.

### 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 (*NAPRA Competencies 3.1.4, 3.1.5, 3.2.1, 3.2.7, 3.4.1, 3.4.2*)
- Perform batch repackaging, unit dose repackaging with appropriate labelling and good manufacturing practices (*NAPRA Competencies 3.2.3, 3.2.4, 3.2.5, 3.2.6, 3.2.7*)
- Practice good time management skills with an emphasis on prioritizing duties (*NAPRA Competency 4.1.1*)
- Be familiar with centralized and decentralized pharmacies models
- Apply the principles of "The Five Rights" of medication safety (*NAPRA Competency 3.4.2*)
- Identify all the key information needed in order to process prescriptions electronically, including the prescription components, patient profile, physician profile and drug file.

- 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 (*NAPRA Competency 3.4.1*)
  - Demonstrate mathematical skills in calculating the dosage, quantity to be dispensed and days' supply with consistency and accuracy. (*NAPRA Competencies 3.1.5, 3.3.1*)
2. demonstrate technical accuracy and excellence in processing prescriptions using pharmacy software.
- 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 (*NAPRA Competencies 4.3.1, 4.3.2*)
  - 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...). (*NAPRA Competencies 6.1.1, 6.1.2, 6.2.1, 6.2.2*)
3. apply knowledge of inventory management and perform purchasing, receiving, stock storage and rotation functions.

Potential Elements of the Performance:

- Review theory of institutional inventory procedures (*NAPRA Competencies 4.2.1, 4.2.3, 4.2.4*)
  - Articulate the Special Access Programme process
  - Explain the role of wholesalers and group purchasing organizations
  - Demonstrate the roles and responsibility of managing a back order (*NAPRA Competency 4.2.3*)
  - Follow policy and procedure for identification, mitigation and management of narcotic and controlled drug diversion (*NAPRA Competency 4.2.5*)
4. 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 (*NAPRA Competencies 1.1.1, 1.4.3*)
  - Demonstrate personal and professional integrity (*NAPRA Competency 1.2.1*)
  - Understand the Public Hospitals Act and contrast pharmacy practice in hospital compared to community practice (*NAPRA Competencies 1.1.1, 1.1.2*)
5. 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 (*NAPRA Competency 1.4.8*)
- Describe the institutional structure and the unique and interdependent roles and responsibilities of various professions and committees on the medication management process (*NAPRA Competencies 1.4.8, 8.1.1*)
- Recognize quality assurance programs and professional associations, with emphasis on how they change best practice (*NAPRA Competency 9.2.1*)

- Describe the role of the Medical Advisory Committee, Pharmacy & Therapeutics and the Ontario Hospital Association (*NAPRA Competency 1.4.8*)
6. define the importance of patient quality improvement measures. (*NAPRA Competencies 9.2.1, 9.2.2*)

Potential Elements of Performance

- Describe medication reconciliation and understand how it impacts patient care (*NAPRA Competency 2.2.4*)
- Gather information from the patient using appropriate interview techniques and the patient's health records (*NAPRA Competencies 2.2.1, 2.2.3*)
- Describe antibiotic stewardship, microbial surveillance, and nosocomial infections and management strategies
- 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; (*NAPRA Competency 9.1.2*) 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
  - 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
8. Hospital Fieldwork
- Hospital Orientation
  - Pharmacy Orientation
  - Hospital Software Training
  - Order Entry
  - ADM Units
  - Ward stock
  - Fill lists
  - Unit dose
  - Professionalism

#### IV. REQUIRED RESOURCES/TEXTS/MATERIALS:

1. Hospital Pharmacy Procedures for Pharmacy Technicians – Latest Edition, Marie Atlas, Audrey Faris. Pharmacy Tech. Consultants Ltd. ISBN: 978-0-9810411-6-2
2. Sault College Learning Management System (D2L)

#### V. EVALUATION PROCESS/GRADING SYSTEM:

Assignments (2 @ 5% each)	10%
Parenteral Drug List	10%
Parenteral Drug Quizzes (5 @ 2% each)	10%
Exam #1	10%
Lab Practical Tests (4 @ 10%)	40%
Final Exam	20%
<b>Total</b>	<b>100%</b>
Institutional Dispensing Math Test	pass/fail
Fieldwork (30 hours)	S or U

1. To pass this course, students must achieve an overall course grade of at least 60% (calculated as indicated above) **and** a pass mark for the Institutional Dispensing Math Test **and** a satisfactory (S) grade on the fieldwork component. ALL components of this course must be completed to be successful.
2. **Institutional Dispensing Math Test:** Students must achieve a mark of **100%** to pass as per 'zero tolerance' with calculations policies set forth by the program accrediting body (CCAPP). Students have up to three attempts to achieve the 100% mark. If a student is not successful after 3 attempts, remediation is required.
3. **Fieldwork:** To obtain a satisfactory (S) grade, students must complete 30 hours of fieldwork in a hospital (attendance is *mandatory*). This fieldwork will include a general hospital orientation, a hospital pharmacy orientation, simulation activities, and a wrap-up session. Students must have submitted all documentation related to Health Requirements for Fieldwork as described in the ***Student Success Guide BEFORE*** attending the pharmacy orientation. Students who have **not** submitted this documentation will not be permitted to complete their fieldwork and will automatically be assigned a "U" grade.
4. All policies and procedures as outlined in the current Student Success Guide related to submitting assignments, scholarly work/academic honesty, tests and examinations will be followed.
5. **No supplements** will be provided for labs, tests or the final exam.

6. Students missing labs, tests or the final exam because of illness or other serious reason must contact the professor before the lab, test, or exam to inform him/her (by phone or email). Those students who have notified the professor of their absence, according to policy, will be eligible to arrange an opportunity to complete the lab, test, or exam at another time. Students must contact the professor on their first day back at school following a missed lab, test, or exam. Those students who do not follow the above procedures will receive a zero for that lab, test, or exam. The professor reserves the right to request documentation to support the absence.

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%	3.00
B	70 - 79%	2.00
C	60 - 69%	1.00
D (Fail)	50 – 59%	0.00
F (Fail)	49% and below	
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:** 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 most 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.*

If a faculty member determines that a student is at risk of not being successful in their academic pursuits and has exhausted all strategies available to faculty, student contact information may be confidentially provided to Student Services in an effort to offer even more assistance with options for success. Any student wishing to restrict the sharing of such information should make their wishes known to the coordinator or faculty member.

**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 in D2L and on the portal form part of this course outline.