

SAULT COLLEGE OF APPLIED ARTS AND TECHNOLOGY

SAULT STE. MARIE, ONTARIO



**SAULT
COLLEGE**

COURSE OUTLINE

COURSE TITLE:	Pharmacology I		
CODE NO. :	PTN103	SEMESTER:	1
PROGRAM:	Pharmacy Technician		
AUTHOR:	Justin Randall Reid Pharm D.		
DATE:	Sept. 2011	PREVIOUS OUTLINE DATED:	N/A
APPROVED:	"Marilyn King"		Sept/11
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	CHAIR, HEALTH PROGRAMS		DATE
TOTAL CREDITS:	3		
PREREQUISITE(S):	Registration in Pharmacy Technician Program		
HOURS/WEEK:	3		

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For additional information, please contact the Chair, Health Programs
School of Health and Community Services
(705) 759-2554, Ext. 2693

I. COURSE DESCRIPTION:

This Course is an introduction to the study of pharmacology. Students develop fundamental knowledge about the action of medications on the human body. Learners will begin study of current and newly approved prescription medications / pharmaceutical products based on disease state, therapeutic use and pharmaceutical classification. Emphasis will be on developing skills in the use of references and resources specifically utilized in the pharmaceutical industry to research, summarize and apply drug information within the pharmacy technician's legal scope of practice.

Foundational elements of this course are the National Association of Pharmacy Regulatory Authorities (NAPRA) Competencies (1, 2, 3, 4, 7, & 9) and Canadian Pharmacy Technician Educators Association (CPTEA) Educational Outcomes (1 & 4).

II. LEARNING OUTCOMES AND ELEMENTS OF THE PERFORMANCE:

Upon successful completion of this course, the student will demonstrate the ability to: Define, and discuss pharmaceutical products, the pharmacological classification of the product and its therapeutic use as treatment in a given disease state. Students will need to analyze and relate knowledge obtained from this course and Health Sciences I (PTN 100).

Potential Elements of the Performance:

- Practice information-processing skills, critical thinking, and problem solving skills by utilizing appropriate information and/or resources
- Identify and understand the fundamentals of Pharmacology by correctly recognising drug class/schedules/categories, dosage forms, dose, quantity, and directions for use and associate drug names with common reasons for use, adverse effects, contraindication, and drug interactions
- Apply human physiology/pathophysiology discussed in Health Sciences I (PTN 100) to understand how a drug can be used therapeutically as treatment for a given disease state affecting a body system
- Within the role and responsibility of a Pharmacy Technician student should work successfully collaborating with a health care team in a real practice setting
- Work within a legal, ethical and professional framework of a Pharmacy Technician by knowing when and how to refer to or ask the pharmacist questions and develop a plan to promote professional competence Identify drugs in the various drug classes in relation to the disease state it treats with respect to the requirements of the drug
- Identify dispensing requirements with respect to labelling, storage, and directions for use including auxiliary labels
- Demonstrate professionalism by accepting responsibility and accountability for their actions

III. TOPICS:

1. Fundamentals of Pharmacology – An introduction to Drug Action
 - Ethical Obligation Relationship to Pharmacology
 - What is a drug? (Class, Schedule, Category)
 - Drug Names
 - Regulation and Approval Processes
 - Drug as a vehicle for the human body (Pharmacokinetics, Pharmacodynamics, Pharmacotherapeutics)
 - Dose (Special Populations, Renal and Hepatic Clearance)
 - Drug Interactions, Adverse Drug Reactions, Medication Errors, Toxicities, Safety/Efficacy, non-adherence
 - Addiction, Dependence and Tolerance
 - Appropriate Reference Sources (Online and Textbook Resources)

2. Drugs Affecting the ANS and CNS
 - ANS / CNS System
 - ANS / CNS System disorders
 - Treatment of Anxiety, Depression, Schizophrenia and other Psychosis, Parkinson's Disease, Huntington's Disease, Seizure, Pain / Analgesics, Narcotics, Anaesthetics [i) Neuroleptic, ii) Acute], Migraines, Alzheimer's Disease, sleep disorders, Attention Deficit/Hyperactivity Disease, Addiction

3. Drugs Affecting the Musculoskeletal System
 - Musculoskeletal System
 - Musculoskeletal System disorders
 - Treatment of neuromuscular blockade, muscle spasms, autoimmune disease that affect musculoskeletal systems, Osteoporosis, Paget's Disease, Hyperuricemia and Gout

- W 6 4. Drugs Affecting Ophthalmic and Otic Systems
 - Ophthalmic and Otic System
 - Ophthalmic and Otic System disorders
 - Treatment of Glaucoma, Vertigo, Ophthalmic and Otic Infections

- W 7, 8 5. Drugs Affecting the Cardiovascular System
 - Cardiovascular System
 - Cardiovascular system disorders
 - Treatment of Angina, HTN, Heart Failure, MI and Stroke, Arrhythmia, Hyperlipidemia, Blood Clots / Drugs that affect blood coagulation, Emergency Cart Medications

IV. REQUIRED RESOURCES/TEXTS/MATERIALS:

- Moscou K, Snipe K. Pharmacology for Pharmacy Technicians. 2009 Mosby inc.

- Research articles or other online resources as indicated by the professor.

V. EVALUATION PROCESS/GRADING SYSTEM:

Three Quizzes (10% each)	30%
Two Tests (15% each)	30%
Final Examination	40%
Total	100%

1. The pass mark for the course is 60%. The total grade is composed of marks accumulated for 3 tests.
2. All policies and procedures as outlined in the current Student Success Guide related to submitting assignments, scholarly work/academic honesty, tests and examinations.
3. **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%	3.00
B	70 - 79%	2.00
C	60 - 69%	1.00
D	50 – 59%	0.00
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.