SAULT COLLEGE

SAULT STE. MARIE, ONTARIO

In partnership with Laurentian University, Cambrian College, St. Lawrence College & Northern College

COURSE OUTLINE

COURSE TITLE:	Basic Epidemiology		
CODE NO. :	HTH105	**SEMESTER:**	2
PROGRAM:	Collaborative BScN		
PROFESSOR:	Jordan Robson B.Sc., M.Sc.		
AUTHOR:	Foyez Haque In collaboration with NEOCNP; revised by Fidel Obu, MPH		
DATE:	April, 2017	**PREVIOUS OUTLINE DATED:**	N/A
APPROVED:	*"Robert S. Chapman"*		*Apr. 2017*
	CHAIR, HEALTH PROGRAMS		**DATE**
TOTAL CREDITS:	3		
PREREQUISITE(S):	None		
HOURS/WEEK:	3		

I. COURSE DESCRIPTION:

This is an introductory level course and is intended to provide students with a working knowledge of the basic concepts and methods of epidemiology. Learners are required to integrate new and prior learning.

II. LEARNING OUTCOMES AND ELEMENTS OF THE PERFORMANCE:

ENDS IN VIEW

At the end of the course, the students will be able to:

1. Understand basic epidemiology terminology and use epidemiological concepts to determine the health status of a population
2. Understand the basic concept of epidemiological studies including their uses and limitations
3. Read, understand and critically appraise epidemiological papers in literature,
4. Understand the basic concepts of chronic and communicable disease epidemiology
5. Apply epidemiological skills in public health-related areas.

PROCESS (online)

The faculty's intent is that a caring relationship will develop between the teacher and learners, indicative of the type of relationship that learners will be developing with their clients. It is hoped that learners will understand that caring involves challenges, critical thinking, and nurturing and that this will be the nature of the relationship in the seminars. It is expected that learners will access and examine relevant literature and share their practice experiences in class each week. Preparation for class will contribute to the quality of the learning activity experiences and will facilitate success in the course. The learners will be encouraged to engage in the reflective process.

This course is supported with the Learning Management System (D2L).

III. TOPICS:

The course will be organized around the following concepts:

Class Content

Unit 1	**Course Overview and Introduction to Epidemiology** **Learning Objectives** • Understand the basic concept of epidemiology • Understand the historical context of epidemiology in today's public health practice
Unit 2	**Measures Of Disease Frequency - Incidence and Prevalence** **Learning Objectives** • Understand the definitions of incidence and prevalence • Understand the relationship between incidence and prevalence • Understand the use of incidence and prevalence in describing disease
Unit 3	**Measures of Disease Risk: Rates and Risks** **Learning Objectives** • Understand the definitions of rates and risks • Understand the application of rates and risks to health care
Unit 4	**Design of Epidemiological Studies: Observational and Experimental Studies** **Learning Objectives** • Understand the basic concept and types of observational and experimental studies • Understand the application of epidemiological studies to health care
Unit 5	**Potential Sources of Errors in Epidemiological Studies** **Learning Objectives** • Understand the potential sources of errors in epidemiological studies e.g. bias, confounding • Understand how to avoid or control for bias and confounding in health research

Unit 6	**Causation in epidemiology** **Learning Objectives** • Understand the concept of sufficient and necessary cause for diseases • Understand how to establish the cause of a disease and its application to health care
Unit 7	**Basic Statistics** **Learning Objectives** • Understand how to summarize and present health data • Understand the basic concepts of statistical inference
Unit 8	**Mid-term examination** (After the first half of the course).
Unit 9	**Chronic disease Epidemiology** **Learning Objectives** • Understand the levels of prevention in epidemiology • Understand the concept and criteria for screening in chronic diseases and its application to health care
Unit 10	**Communicable disease Epidemiology** **Learning Objectives** • Understand the concept of endemic, epidemic and pandemic diseases • Understand the concept of the epidemiologic triad in the transmission of communicable diseases • Understand the steps in the control of an outbreak
Unit 11	**Surveillance** **Learning Objectives** • Understand the basic concepts of surveillance • Understand the purpose of surveillance in health care
Unit 12	**Ethics** **Learning Objectives** • Understand the basic concepts of ethics for human research • Understand the ethical principles to consider in conducting health research

Unit 13	**Program evaluation** **Learning Objectives** • Understand the definition and types of program evaluation • Understand the steps in the evaluation of health programs
Unit 14	**Practical Epidemiology** **Learning Objectives** • Understand how to complete a research project from start to completion • Understand the process of critically appraising health research
Unit 15	**Final examination (**At the first end of the course).

***Sequencing of topics/assignments is subject to change based on teaching/learning needs.**

IV. REQUIRED RESOURCES/TEXTS/MATERIALS:

Recommended:

1. Gordis L. (2014). *Epidemiology* (with Student Consult Online Access), (5th edition). Saunders.
2. Bonita R., Beaglehole R., Kjellström T. (2006). *Basic Epidemiology*., (2nd edition). World Health Organization. (free online resource)

Supportive Readings: found on relevant databases, on D2L, or to be handed out in class

V. EVALUATION PROCESS/GRADING SYSTEM:

Evaluation Tool	Due Date	Marks
Course Participation		20%
Assignment		30%
Mid-term examination		25%
Final examination		25%
		100%

- ❖ In order for students to receive a final grade for HTH105, all evaluation components must be completed.

Please refer to Student Manual and Evaluation Processes and Learning Activity Package for policies regarding assignments.

All assignments are due at 0830 on the designated date unless instructed otherwise. Extension requests **must be made prior to the due date and time** and must be in writing. Written requests with permission from the course professor and must include a new due date and time. Extension penalties for non-extenuating circumstances will be 10% per day including weekends and holidays.

Up to 10% will be deducted for APA errors.

Deductions for lateness will be incurred until the point that all components are submitted if it is beyond the due date, as per the nursing program policy in the BScN handbook.

Punctual and regular attendance at classes is highly recommended as a success strategy in this course.

The following semester grades will be assigned to students:

Grade	Definition	Grade Point Equivalent
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.

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.

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.

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

All BSCN courses require 60% for a passing grade.

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.

It is the departmental policy that once the classroom door has been enclosed, the learning process has begun. Late arrivers will not be granted admission to the room.

Course credit will not be granted if more than 20% of classes are not attended, as per the BScN handbook.

VII. COURSE OUTLINE ADDENDUM:

The provisions contained in the addendum located in D2L and on the portal form part of this course outline.