

**Bowling Green State University  
College of Health and Human Services  
Spring 2003**

**Course title :** Epidemiology / Occupational and Environmental Epidemiology  
**Course numbers:** ENVH 449 / ENVH 549  
**Meeting times:** 10:30 to 11:20 (M W F) Olscamp room 213  
**Instructor:** Saleh Rahman, MBBS, PhD, MPH  
**Office:** 220 Health Center, CHHS.  
**Office hours:** Tuesday: 10:00 am – 11:00 am  
Thursday: 10:00 am – 11:00 am  
Other times by appointment; call or email to schedule an appointment  
**Office phone:** 372-9614  
**e-mail:** srahman@bgnet.bgsu.edu

**Course objectives:**

After successfully completion of this course, students should be able to accomplish the following objectives:

- Know the basic tenets of epidemiology
- Understand basic principles of epidemiology with application in environmental health
- Calculate key epidemiological rates and interpret the results.
- Understand the basic principles of designing epidemiological research studies
- Critically review published epidemiologic studies

**Attendance:**

Class attendance and participation in class discussion will carry 10% of grading.

**Text required:** Leon Gordis, Epidemiology (2nd ed). Saunders, 2000.  
ISBN: 0-7216-8338-X

**Text suggested:** Annette M. Rossignol, Core Concepts in Epidemiology ( Two copies are reserved in the library).

**Readings:**

All students are expected to read the texts and facilitate class discussion. A reasonably acceptable answer will be counted as class participation.

**Grading:**

5 assignments	will carry 100 points,	25% will be added to final grade
Midterm exam,	100 points	25% will be added to final grade
Final exam	100 points	40% will be added to final grade
Class participation	100 points	10% will be added to final grade

Grades are assigned on the following basis:

90-100	A
80-89	B
70-79	C
60-69	D
< 59	F

**Assignments:** Total 5 assignments will be distributed in the class. Each assignment is designed based on the topics covered in the class. This includes calculations, article critique, case studies etc. Assignments should be turned- in on the due date. Late submission will reduce your score, 5 points/day late.

**Mid-term exam:** The materials covered in the first half of the class will be included in the mid-term exam. The format of the exam will be multiple-choice short questions, true and false and some short calculations. Closed book.

**Final exam:** Comprehensive materials covered in the class will be included. Format same as mid-term. Closed book.

**Extra assignments:** For graduate students extra assignments will be given.

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**Course Outline** (Subject to revision according to student needs)

<u>Date</u>	<u>Day</u>	<u>Lect</u>	<u>Topic</u>	<u>Readings</u>
01-13	M	01	Class overview	None
01-15	w	02	Historical perspective of Epi	Required reading: Gordis, Chap. # 1 Suggested reading: Rossignol, Chap# 1, 2
01-17	F	03	Historical Development of Epi <b>Distribution of 1<sup>st</sup> assignment</b>	Same as above
01-20	M		<b>NO class (Martin Luther King Day)</b>	
01-22	W	04	Epidemiologic concepts	Required reading: Gordis, Chap. # 5 Suggested reading:
01-24	F	05	Epidemiologic concepts (continued)	Same as above
01-27	M	06	Epidemiologic concepts (continued) <b>1<sup>st</sup> assignment due</b>	Required reading: Gordis, Chap. # 2 Suggested reading: Rossignol, Chap# 3
01-29	W	07	Epidemiologic Measurements <b>Distribution of 2<sup>nd</sup> assignment</b>	Required reading: Gordis, Chap. # 3 Suggested reading: Rossignol, Chap# 4,5,6
01-31	F	08	Epidemiologic Measurements (Cont..)	Same as above
02-03	M	09	Epidemiologic Measurements <b>2<sup>nd</sup> assignment due</b>	Same as above
02-05	W	10	Epidemiologic Research Methods <b>Distribution of 3<sup>rd</sup> assignment</b>	Required reading: Gordis, Chap. # 8,9 Suggested reading: Rossignol, Chap# 7
02-07	F	11	Epidemiologic Research Methods	Same as above
02-10	M	12	Causal Relationship <b>3<sup>rd</sup> assignment due</b>	Required reading: Gordis, Chap. # 13 Suggested reading: Rossignol, Chap# 8

02-12	W	13	Causal Relationship	Same as a bove
02-14	F	14	Case-Control Studies I	Required reading: Gordis, Chap. # 9 Suggested reading: Rossignol, Chap# 9,10
			<b>Distribution of 4<sup>th</sup> assignment</b> (1 <sup>st</sup> Case Study)	
02-17	M	15	Case-Control Studies II Risk Assessment	Required reading: Gordis, Chap. # 10,11
02-19	W	16	Case-Control Studies III <b>4<sup>th</sup> assignment due</b> <b>Distribution of 5<sup>th</sup> assignment</b> (2 <sup>nd</sup> Case Study)	Same as above
02-21	F	17	Discussion on case study	
02-24	M	18	Cohort Studies I	Required reading: Gordis, Chap. # 8, 12 Suggested reading: Rossignol, Chap# 9,10
02-26	W	19	Cohort Studies II	Same as above
02-28	F	20	Cohort Studies III	Same as above
			<b>5<sup>th</sup> assignment due (3<sup>rd</sup> case)</b>	
03-03	M	21	Discussion on the case	
03-05	W	22	Midterm review	
03-07	F	23	<b>Midterm exam</b> (covers material through 03-03)	
03-10	M	to	No class (Spring recess)	
03-16	W		No Class (Spring recess)	
03-17	M	24	Sampling and study size <b>Distribution of 6<sup>th</sup> assignment</b> (3 <sup>rd</sup> Case Study, Nested CC)	

03-19	W	25	Screening <b>6<sup>th</sup> assignment due</b>	Required reading: Gordis, Chap. # 4,17
03-21	F	26	Screening	Same as above
03-24	M	27	Surveillance and Exposure I <b>Distribution of 7<sup>th</sup> assignment</b>	Required reading: Gordis, Chap. # 18
03-26	W	28	Surveillance and Exposure II	Handout
03-28	F	29	Surveillance and exposure III	Handout
03-31	M	30	Population dynamics (Dr. Hailu Kassa) <b>7<sup>th</sup> assignment due</b>	
04-02	W	31	Population dynamics (continued)	
04-04	F	32	Population dynamics (Cont..)	
04-07	M	33	Validity of Study, Assessment & Control of Confounding I <b>Distribution of 8<sup>th</sup> assignment</b>	Required reading: Gordis, Chap. # 14 Suggested reading: Rossignol, Chap# 12
04-09	W	34	Validity of Study, Assessment & Control of Confounding II	Required reading: Gordis, Chap. # 14 Suggested reading: Rossignol, Chap# 12
04-11	F	35	Validity of Study, Assessment & Control of Confounding II	Required reading: Gordis, Chap. # 14 Suggested reading: Rossignol, Chap# 12
04-14	M	36	Occupational and environmental epidemiology (Dr. Fleming Fallon) <b>8<sup>th</sup> assignment due</b>	
04-16	W	37	Occupational and environmental epidemiology (continued)	
04-18	F	38	Occupational and environmental epidemiology (continued)	
04-21	M	39	Clinical Trials	Required reading: Gordis, Chap. # 6,7 Suggested reading: Rossignol, Chap# 9
04-23	W	40	Clinical trial	Same as above

04-25	F	41	Data Analysis and Interpretation <b>Distribution of 9<sup>th</sup> assignment</b>	Required reading: Rossignol, Chap# 11
04-28	M	42	Ethical Issues <b>9<sup>th</sup> assignment due</b>	Required reading: Gordis, Chap. # 19
04-30	W	43	Research Priorities in Environmental Health	
05-02	F	44	Final exam review	
05-09	F		<b>Final Exam</b>	(8:30-10:30)