King Saud University

Applied Medical Science College

Community Health Sciences Department

Health Education Program

Environmental Health Sciences

(CHS 371) Syllabus

Department: Community Health Sciences Department

Program: Health Education Program

Course Title: Environmental Health Sciences

Course Code: CHS 371

Delivery format: At website as lectures

Credit Hours: 3 credit hours

Instructor:

Ass.Prof. Dr/Samira Mohamed Mahboub

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Office hours: Thursday 9-11 am

COURSE DESCRIPTION

This course helps students identify the **concept of Environmental Health Sciences** and their scope. Besides, this course helps the students identify and the criteria of **healthy home environment** and the **impact of air and water pollution** on population and public health. Moreover, the

course provides description for **different methods of solid waste disposal and sewage disposal** with special emphasis on methods of **recycling solid waste.**

Besides, this course helps the students identify the importance of **ground water** and different sources of its pollution.

2. COURSE OBJECTIVES

By the end of this course, students are expected to be able to:

1 Recall the scope of environmental health sciences
2 Categorize environmental health risks
3 Recognize the concept of healthy home
4 Define air pollutants and their sources
5 Discuss water cycle and water pollution
6 Evaluate health hazards from exposure to high and low temperature
7 Assess the impact of high altitude on health
8 Interpret solar radiation in relation to skin cancer
9 Review solid waste disposal
10 Evaluate quality of drinking water

3- Recommended Texts:

For your information, here are some resources if you wish to do more reading.

- Levy B, Wegman D, Baron S and Sokas R. Occupational and environmental Health: Recognizing and preventing disease injury. 5th edition. Lippincott Williams & Wilkins; Philadelphia, New York, London, 2006.

- Conant J, Fadem P. A Community Guide to Environmental Health. Canada: Hesperian Foundation 2008; 352-66.

- H.E. BURROUGHS, SHIRLEY J. HANSEN. MANAGING INDOOR AIR QUALITY. FOURTH EDITION. USA: The Fairmont Press, Inc. 2008;

- Moore, G.S. (2007). Living with the Earth: Concepts in Environmental Health Science. (3rd Edition). CRC Press: Boca Raton, FL.

And here are some useful websites if you are interested:

- www.bnl.gov
- http://www.ag.ndsu.edu/pubs/ageng/structu/ae892-1.htm#septictanks
- www.ni-environment.gov.uk
- www.epa.gov/safewater
- http://en.wikipedia.org/wiki/Water_supply_and_sanitation_in_Saudi_Arabia#Access
- http://oak.cats.ohiou.edu/~ds106488/Diving%20Injuries.html#anchor1484550
- www.health.gov.au/pubhlth/strateg/envhlth/risk/
- http://www.niehs.nih.gov

4. Grading system:

Exams:

1- Two Written exams (Midterm I and II) will include questions on lecture material and handouts (20% each) and will be conducted at weeks 6, 10 respectively.

2- Students will be required to perform certain tasks and assignments in groups throughout the course on related environmental topic chosen by the course instructor (10%)

3- Students will be asked to plan for an educational booth on related environmental topic chosen by the course instructor (10%)

4- Final written exam (40%)

Exam dates:

4/12/1434 and 17/1/1435.

• **For questions related to changes in exam dates,** contact the instructor of the course

N.B. Exams will **not be repeated** for students who did not attend the exam on time **unless approval** from Exam Committee at the Department of Community Health Sciences.

Exams that are missed will get a score of zero.

The final exam will be cumulative (i.e., includes the whole material from the entire course)

5. POLICIES

All students should be enrolled in groups (up to 6 students per each group), each student will have to choose her group. Each group will choose a nick name and a leader. All tasks and assignments will be accomplished by the whole group members and should be presented to the course coordinator on time.(10% of the course marks will be given on these tasks).

6. LECTURE SCHEDULE

	List of topics
1	Introduction: definitions, scope of environmental health science **Workshop**: How can environment affect our health
2-4	Healthy home: Factors at home Biological Chemical Physical **Video presentation**: safety home for children **Workshop: Criteria of safety home for children**
5-7	**Environmental health risks** Altitude Heat Cold radiation **Workshop** :1- Recommendations for a family trip to the valley 2- Precautions taken by a civil engineering with family history of skin cancer **Video presentations**
8	**Air pollution** **Workshop:** Health risks from living in large industrial cities
9-10	**Water pollution** **Under ground water,** **Assignment:** Zamzam well**.** **Video presentation:** Water cycle

11-13	**Solid waste disposal -- sewage disposal** **Video presentation:** Solid waste disposal
14	**Drinking water treatment** **Assignment: Saving water**