

**WMHS 602 Contemporary Issues in Water Resources: U.S./Mexico Water-Food-
Nexus : An International Field Trip Class**

(3 credit hours)

Spring-break 2016

March 13-19 2016

Instructor:

Ronald Kaiser

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Office Hours: by appointment

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Prerequisite: Graduate classification and approval of instructor

Class Limit: 15 students

Course Description: This wintermester course (March 2016) will provide a comparative analysis on the role of water, agriculture, and food production in Texas and Guanajuato, Mexico. It will include an analysis of the biophysical, social and institutional factors in decision-making. Exposure to cultural, institutional, social, political and economic differences among countries is crucial to developing strong critical thinking skills. The readings and lectures will cover the fundamental principles that are necessary for understanding water issues in both countries.

Learning Outcomes:

Knowledge outcomes (Things students should know by the end of the course):

- Know the major water resource issues in Mexico (specifically Guanajuato) and the United States.
- Understand the complexity of the water-food nexus approach in and between the U.S. and Mexico
- Be aware of the food and export/import opportunities in both countries
- Become aware of cultural, institutional and scientific differences among the two countries

COURSE MATERIALS AND GRADES:

Readings will be included in a "class Dropbox folder."

Grading:

Grade for the course will be based on the number of points earned through class participation and a paper.

1. Paper	90 points
2. Class participation	10 points
Total:	100 points

Grades based on the following:

A = 90+% of 100 points

B = 80+% of 100 points

C = 70+%, of 100 points

D = 60+%, of 100 points

F = <60%, of 100 points

Class Participation (10 points)

These points are based on questions and answers in class, contribution of opinions and relevant experiences in class, as well as comments and contributions to topics.

Paper (90 points)

Minimum of 3,000 words, Topic selected in consultation with professor.

Paper Due Date:

Standard for Grading: All papers will be graded on the following criteria:

- a) Substance (75% of the presentation's grade)
 - 1) Research - thorough and in-depth research as evidenced by the scope and reliability of cited sources;
 - 2) Content and Analysis - central ideas clearly defined and developed with in-depth coverage including theoretical and technical definitions, academic thinking (beyond personal opinion), and cited support;
 - 3) Originality of Thought - Clear evaluation of alternatives demonstrating thoughtfulness;
- b) Structure (10% of the paper's grade)
 - 1) Organization - clear and consistent organization that relates all the ideas of the paper together logically in a thoughtful, sophisticated, and memorable manner with ample transitions to aid the reader;
 - 2) Grammar, Composition, and Punctuation -concise sentences with no errors of grammar, punctuation, word choice, spelling, or usage, and with unified, coherent, and well-developed sentences structure and paragraphs;
- c) Sources and Citation (10% of the paper's grade) - The paper must employ an appropriate number and diversity of reputable sources reflecting the treatment that the subject matter has received in critical scholarship and other literature.

- d) Process (5% of the paper's grade) – meeting deadlines and complying with general requirements.

WMHS 602 Course Calendar & Topics

Pre-departure

Housekeeping, Logistics, Health and Safety

Sunday, March 13

Travel from Houston to Queretaro by plane and by bus to Hacienda Santa Clara Mexico. Local arrangements by Hacienda

5:00 -7:00 pm

Tour of Hacienda Santa Clara

7:30

Dinner at Hacienda Santa Clara (HSC)

Monday, March 14

9:00 – 1:00 pm

Overview of Water Resources in U.S., Texas, Mexico, and Guanajuato

Ronald Kaiser, & Jose Soria

Legal framework and institutions for water in the U.S., Texas, Mexico and Guanajuato

Ronald Kaiser

Jose Luis Castro (COLEF)

1:30-2:30 pm

Lunch at HSC

3:00- 4:00 pm

Professor Gabriel Eckstein (TAMU)

Food, energy, water nexus legal considerations

4:30-5:30

Class discussions

7:30 pm

Dinner at HSC

Tuesday, March 15

- 9:00 - 4:00 am **Site visit to small, medium and large farming operations**
Travel arrangements by Hacienda). Box lunch by HSC
- 4:00 - 7:00 pm **Tour of San Miguel**
- 7:30 pm Dinner at HSC

Wednesday, March 16

- 8:30-10:30 **TRAVEL TO IRAPUATO** *Travel arrangements by Hacienda*
- 10:30 - 2:30 am **Agricultural Water Needs and UGTO Agricultural Facilities**
Dr. Eduardo Salazar Solís/
Dra. Graciela María de la Luz Aguilar Ruiz (UGTO)
- 12:30-1:30 pm Lunch in Irapuato
- Marketing trends and Food Exports from Mexico to U.S**
Emilio Lacedelli Constantini. Director de Gigante Verde
Irapuato
- 3:00 - 5:00 pm **Mr. Lucky Food Processing Plant tour**
- 6:00 - 7:30 pm **TRAVEL to GUANAJUATO**
7:30 - 8:30 pm Hotel and dinner in Guanajuato

Thursday, March 17

- 9:00 - Noon **Economic and Social drivers in Guanajuato**
M.A. Andrea Cecilia Garcia Rivera (UGTO)
Mining and groundwater issues in Guanajuato
Yann René Ramos Arroyo (UGTO)
Water quality and public health in Guanajuato
Diana Rocha (UGTO)
- 12:15 - 2:30 pm **Transportation and Lunch at Sierra de Santa Rosa**
- 3:00 - 5:30 pm **Field trip to Monte San Nicolás and reservoir**

Yann René Ramos (UGTO)

5:30 – 7:30 pm Return to HSC

7:30 Dinner at HSC

Friday, March 18

9:00-10:00am

Travel to San Miguel. *Travel arrangements by Hacienda*

10:00-12:05

San Miguel de Allende water supply and treatment

Director of San Miguel de Allende Utility Dept.

Visit well fields and potable water treatment plant

12:30 – 1:30 am

Lunch in San Miguel

1:30 – 5:30 pm

Visit San Miguel wastewater treatment plant

Guided tour SMA dam and reservoir

5:30-8:30

Dinner and free time in San Miguel

8:30

Return to HSC

Saturday, March 19

Travel from Santa Clara to Queretaro by bus and by plane to Houston. Local bus arrangements by Hacienda