

## FISH AND WATER QUALITY FAS 6932 SECTION 9031

TIME: To Be Announced

CREDIT: Variable (1-2)

INSTRUCTOR: Dr. Daniel E. Canfield, Jr.  
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OFFICE HOURS: By appointment

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### COURS DESCRIPTION:

The focus of this course is to examine the relationship between water quality parameters (both organic and inorganic) and how they relate to human and fish health. The development of federal and state policies that govern these water quality parameters will be discussed. Students will learn through lectures and classroom discussion. Students will leave with a basic understanding of water quality and how it pertains to fish and human health.

### OJECTIVES:

At the conclusion of this course the student will be able to:

- Define chemical parameters (i.e. class, pathways, symptoms)
- Research and identify state and federal guidelines for specific chemical parameters.
- Assess how federal and state guidelines relate to human and fish health issues.
- Prioritize the most critical chemical parameters affecting human and fish health.
- Organize and lead a classroom discussion on a designated water quality parameter.

Week	Lecture
Week 1 (Aug 23-25)	Introductory Material, pH, Conductivity
Week 2 (Aug 26-Sept 1)	Oxygen, Hardness, Alkalinity
Week 4 (Sept 9-15)	Phosphorus, Chlorophyll, Nitrogen, Secchi, Color
Week 5 (Sept 16-22)	Inorganics:Antimony, Arsenic, Asbestos, Barium, Born
Week 6 (Sept 23-29)	Inorganics Continued:Cadmium, Chromium, Copper
Week 7 (Sept 30-Oct 6)	Inorganics Continued: Cyanide, Fluoride, Iron
Week 8 (Oct 7-13)	Inorganics Continued: Lead, Manganese, Mercury
Week 9 (Oct 14-20)	Inorganics Continued: Selenium, Silver, Sulphate
Week 10 (Oct 21-27)	Inorganics Continued: Sulphide, Total Dissolved Solids
Week 11 (Oct 28-Nov 3)	Organics: Aldrin, Chlordane, 2,4-D, DDT, Diazinon, Dieldrin
Week 12 (Nov 4-10)	Organics Continued:Endrin, Heptachlor, Heptachlor Epoxide
Week 13 (Nov 11-17)	Organics Continued: Methoxychor, Methyl Parathion, Nitrilotriacetic Acid (NTA)
Holiday Week (Nov 18-24)	Organics: Parathion, Phenols, 2,4,5-TP, Toxaphene, Trihalomethanes
Week 14 (Nov 25-Dec 1)	Harmful Algal Blumes (HABs)
Week 15 (Dec 2-8)	Endocrine Disrupters

REFERENCE TEXT: Canadian Water Quality Guidelines, Classroom Handouts

#### ASSIGNMENTS:

1. Portfolio-Each student is required to keep a summary sheet of all chemical parameters that includes: chemical name, class, original intended use of chemical, human and fish health concerns, any major peer reviewed literature that contributed to the concern over human and fish health, the state of Florida drinking and recreational water standards for said chemical parameter. Portfolios should be neatly organized and typed and turned in the last week of class. (50%)
2. Student presentation-Each student will choose a parameter to present to the class. The student is responsible for compiling such information as: chemical name, class, original intended use of chemical, human and fish health concerns, any major peer reviewed literature that contributed to the concern over human and fish health, the state of Florida drinking and recreational water standards for said chemical parameter. The student will be responsible for leading the classroom discussion for that class period. Student will be graded on the quality of information presented and their level of professionalism while presenting. (30%)

GRADING:

Assignment 1	50%
Assignment 2	30%
Classroom Participation	20%

A= 90.0-100.0%                      B=89.9-80%  
C=79.9-70%                          D=69.9-65%  
F=<65%

ATTENDANCE:

Attendance is required.

COMMUNICATION:

Please be advised that any emails concerning notices about class readings, cancellations etc. will be sent to your UFL email account.

SYLLABUS CHANGES:

The instructor reserves the right to adjust the syllabus to preserve the integrity of the course.

ACADEMIC HONESTY:

As a result of completing the registration form at the University of Florida, every student has signed the following statements: "I understand that the University of Florida expects its students to be honest in all their academic work. I agree to adhere to this commitment to academic honesty and to understand that my failure to comply with this commitment may result in disciplinary action up to and including expulsion from the University."

SOFTWARE:

All faculty, staff, and students of the University are required and expected to obey the laws and legal agreements governing software use. Failure to do so can lead to monetary damages and/or criminal penalties for the individual violator. Because such violations are also against University policies and rules, disciplinary action will be taken as appropriate.