

Fall 2018

EM 631-851: Legal Aspects of Environmental Engineering

Michael Bonchonsky

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EM 631, F 2018, Syllabus and Welcome letter:

Legal Aspects of Environmental Engineering

Instructor. MP Bonchonsky, Chemistry and Environmental Science

Department, NJIT, and adjunct to Mechanical and Industrial Engineering Dept

Office: Rm. 365 Tiernan Hall; This course is being presented on NJIT's Moodle system; lectures are found through a link shown on moodle for each week's entry; email contact through Moodle or michael.p.bonchonsky@njit.edu or mickbon@aol.com

Dear Students,

This semester we will witness the vigorous policy debates only found in the highly charged atmosphere of a roiling Presidential regime. The federal EPA Administrator is a new appointee who will no doubt examine and assist in the formulation of the many developing environmental policies of the current administration. The USEPA as a part of the federal government executive branch has long been a driving force in the execution and development of environmental regulation. The new EPA Administrator Andrew Wheeler is among the few that have represented industries regulated by the EPA, in this case coal. As a former technical civil servant at EPA myself, I always hope for the best from a new leadership team as the current administration makes its imprint on EPA policies and programs. There is plenty of room, too, for improvement. As the tide of public attention has risen on global environmental matters, change has not been equally evident in federal policies in recent years. In this course, we will watch for upcoming rules and policy changes and we will examine a wide range of environmental law and associated rules and regulations. We will track such changes as they may arise this semester.

Such regulatory controls over time have forged a complex system of environmental rules that today regulates industrial and other private and public actions that impact the environment. We will review these rules from the vantage point of the practicing technical environmental engineer and scientist. You will become familiar with the background and derivation of these laws as well as the major operational features such as environmental permits and enforcement. We will analyze several major environmental cases that give definition to the key features of these laws. Each class will direct itself to the practical application of these laws. I have worked as a regulator (USEPA) for 11 years and as an environmental consultant to industry. When I left the EPA I served as the enforcement director, Region II, in New York. I look forward to sharing my experiences with you and exploring many current and historical environmental issues, particularly as issues heat up in the developing political changes at the national level.

Class Syllabus:

Instructor: Michael P. Bonchonsky

Location: on line through NJIT's Moodle system

<http://moodle.njit.edu>

lectures downloadable at the link for each week's material on Moodle

Office: Tiernan Hall Rm 365
Telephone: cell 908-692-3477
E-mail: michael.p.bonchonsky @njit.edu; also at mickbon@aol.com

Office Hours: T, Th 10-11:30 and by appointment

1. Description:

This course covers the legal aspects of environmental engineering and science and reviews the major features and principles of modern environmental law. Topics include as an example the major features of the Clean Water Act and related programs for protecting the water environmental. In a similar manner each of the major environmental laws will be reviewed and synthesized (see syllabus topics below.) Primarily for non-lawyers.

Lecture hours: 3; Credit hours: 3

2. Required Reading

Students in this course must obtain the following materials from the NJIT bookstore or through any of the commercial on-line dealers.

Required: Text: Environmental Law Handbook, current ed. (current edition: 23rd edition, 2017) Bernan Press a subsidiary of Rowan and Littlefield MD (available in the NJIT bookstore; order online from NJIT by going to bkstr@njit.edu, or from other vendors). If you can't get the current ed. 23rd, the 22nd will suffice.

One of two books are also required reading from which you may choose: "A Civil Action" (by Jonathan Harr) or "Silent Spring" (by Rachel Carson).

Weekly Lectures (audio track and ppts) are to be downloaded from link on Moodle (for each week's material)

Each week a chapter pertaining to the area of environmental law presented is to be read. The assigned chapter is designed to give you background knowledge needed to understand the subject matter covered in the weekly lecture found on iTunesU and (the PPTs) also posted on Moodle. The chapter for each topic should be read prior to the lecture. The more you are able to read the better prepared you will be to understand and consider the information in the lectures.

I will supplement the readings with handouts and journal articles that will be available on Moodle.

You must also read one of the two books identified (even if you do not choose the optional writing assignment) and be prepared to answer questions on it in the Final. "Silent Spring," R. Carson or "A Civil Action", J Harr.

3. Evaluation

The evaluation of student performance in this course is based on the following components:

Note: Exams must be attended on campus on a date and time to be set within the first month of classes, on a Saturday morning. (Note the Final is generally the first Saturday of the final exam period. and the midterm is also a Saturday midway through the semester). If you are greater than 50 miles from campus, you may select and identify an approved proctor to administer the exam; attendance on campus for the exam is preferred (it is administratively easier for all concerned). As soon as I am notified of the on-campus date and room, you will be notified through Moodle.

1. Midterm examination (45%): There will be a midterm exam comprised of primarily short essays. This exam will be based on course lectures, discussion sessions, and assigned readings.
2. Participation: 10% based on participation and responsiveness on Moodle, eg, logging on each week, posting and responding to discussion topics, etc.
3. Final examination (45%): There will be a final exam conducted at the end of semester.. The format of the final exam will be the same as the midterm exam; it will be based only on course material covered during the second half of the semester.
4. You may select an optional writing assignment. If optional writing assignment is chosen the midterm will be weighted 35%, 10% participation and responsiveness on Moodle, Final 35% and paper 20%. If you choose the optional paper: You are to prepare and submit via email or Moodle a five page double space paper (12 pt font) to include a brief summary and full discussion of how environmental change was induced by either of the two books assigned for the semester: "Silent Spring," R. Carson or "A Civil Action", J Harr. You must use researched references (at least five); peer reviewed sources must be emphasized. Due three weeks before the final. Reminder will be sent. Note: You must also read one of the two books identified (even if you do not choose the optional writing assignment) and be prepared to answer questions on it in the Final.

Note: Class "participation": Students are expected to check in to moodle to receive review questions and summaries each week (not required for submission, but you must work on these each week to succeed in the course). Discussion items and commentary must be posted on moodle; such regular postings are required and comprise part of your grade as noted above. You must participate by posting regular comments on Moodle discussion forums in order to receive participation points

4. Important Notices

A. Students enrolled in this course are forewarned that the consequences of plagiarism or academic misconduct of any kind are severe. Violations will be handled in accordance with the rules outlined in the NJIT Student Handbook (current edition). If you are unfamiliar with these procedures, you should consult the appropriate sections of this governing manual.

B. Final grades are not subject to post-semester adjustment—with the exception of the amendment of a grading error. Under no circumstances will students be given the opportunity to complete extra-credit papers or other assignments to bolster their final grades.

5. Lectures available for download from NJIT's moodle site (link for each week's material provided on moodle). We will use Moodle as the central communication forum (check Moodle weekly, email to me via Moodle).

The downloaded lectures each week progress through the subject matter as follows and as shown weekly on the class moodle site:

Course Outline:

Intro: the nature of environmental rules and regulations

The history of environmental rules

Clean Water Act: water permits, effluent guidelines

CWA Continued: nonpoint source, spill prevention

Clean Air Act

Safe Drinking Water Act

National Environmental Policy Act

Midterm TBD on campus at Sat AM at approx midpoint

Toxic Substances Control Act

Hazardous Waste Law: introduction and Resource Conservations and Recovery Act (RCRA, HSWA)

Superfund (Comprehensive Environmental Response Compensation and Liability Act, CERCLA, amended as SARA)

Underground Storage Tank Rules

Occupational Safety and Health Act

Sampling and Compliance

International Environmental Law

6. Learning Outcomes:

Each of the major federal environmental statutes and rules will be examined as identified above. Learners will be able to identify and recognize the major provisions of these areas of environmental law, examples of which are shown below:

General Environmental law: Compare statutory law with common law, Describe the development and roots of environmental law.

Clean Water Act: Compare modern provisions and objectives (CWA) with historic goals for clean water, Understand major provisions (CWA); Relate current water conditions to modern regulatory requirements; Design a water discharge permit; Compare ambient and effluent limits; Apply watershed management approaches to the control of water pollution.

Clean Air Act: Analyze major provisions and show evolution of regulatory controls; Apply CAA to modern issues: global climate change, acid rain, Know major provisions (CAA); Predict trends in ambient levels of each criteria pollutant; Understand the role of secondary pollutant controls in human society.

Safe Drinking Water Act: Identify health implications of and basis for the regulation of major parameters controlled; Identify changes in potable water treatment resulting from regulatory provisions; Know the technical system of selecting (by regulatory agency) parameters for control; Compare the roles of the levels of government involved in drinking water controls.

Hazardous Waste regulation, Resource Conservation and Recovery Act and CERCLA Superfund program: Apply the legal definition of hazardous waste and hazardous materials, compare; Apply the major provisions to an industrial manufacturing facility; Describe the required major features of remediation of a historically contaminated industrial site.

Final and midterm dates are announced on Moodle (I will send an email on this generally in first month of class). **Both will be held on campus on a Saturday AM (midway and during exam week) designated and proctored by NJIT.** If you are beyond 50 miles from school you may contact me to discuss the use of a proctor of your choosing (A responsible person who you identify to me for approval in advance of exam.)

Please note that you need to follow the syllabus (above) each week through the lectures (downloading and listening to it), read the associated textbook chapter (e.g., water law lecture connects with water law chapter, etc.). There will be a mid semester test and a final exam, and a current book reading from which you may choose, "A Civil Action" (by Jonathan Harr) or "Silent Spring" (by Rachel Carson). I will from time to time provide additional outline type material and review questions to help you focus on critical areas. Communicate questions to me at any time via email (use primarily Moodle email). I look forward to working with you as you join me in examining our system of environmental law.

All The Best

MP Bonchonsky