

Fall 2021

EM 631-853: Legal Aspects in Environmental Engineering

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EM 631 Legal Aspects in Environmental Engineering

EM 631-853, F 2021, Syllabus and Welcome letter:

Legal Aspects in Environmental Engineering, EM 631

Instructor. MP Bonchonsky, NJIT, adjunct to Mechanical and Industrial Engineering Dept through which this course is offered, and University Lecturer Chemistry and Environmental Science Department,

Office: Rm. 323 Tiernan Hall; This course is being presented asynchronously on NJIT's Canvas system; lectures are found through a link shown on Canvas for each week's entry; email contact through Canvas or michael.p.bonchonsky@njit.edu or mickbon@aol.com

Required: Text: Environmental Law Handbook, current ed. (current edition: 24th edition, 2019) ISBN 978-1-64143-350-1 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. 24th, the 23rd will suffice.

NJIT Academic Integrity Code: All Students should be aware that the Department takes the University Code on Academic Integrity at NJIT very seriously and enforces it strictly. This means that there must not be any forms of plagiarism, i.e., copying of homework, class projects, or lab assignments, or any form of cheating in quizzes and exams. Under the University Code on Academic Integrity, students are obligated to report any such activities to the Instructor.

Dear Students,

This semester we will witness the vigorous policy debates only found in the highly charged atmosphere of a new Presidential regime. The new federal EPA Administrator, Michael Regan is a recently named 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 named new EPA Administrator Michael Regan is among the few that have already worked in the administration of environmental protection rules, in this case for the State of North Carolina. He has also served as an air quality specialist for the USEPA in the past. As a former technical civil servant at EPA myself, I always hope for the best from a leadership team as the new 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 to address this 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.

The last administrator, resigning with the incoming administration, played a key role in withdrawing the U.S. from the Paris climate accord, endorsing also a proposal to repeal the Clean Power Plan, suspending the Clean Water Rule and reducing stricter vehicle fuel emissions standards that were set to take effect in 2022. We hope for better this time around.

Many regulations and laws over time, however, have forged a complex system of environmental rules that today regulates industrial and other private and public actions that affect 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 had served as the acting enforcement director, and Deputy 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 Canvas system

<http://Canvas.njit.edu>

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

Office: Tiernan Hall Rm 323...instructor meet ups through webex by aptmnt, just email for instructions

Telephone: cell 908-692-3477

E-mail: michael.p.bonchonsky @njit.edu; also at mickbon@aol.com

Office Hours: webex by appointment

I. 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 technical students. Credit hours: 3

II. 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: 24th

edition, 2019) 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. 24th, the 23rd or recent earlier ed.'s 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 Canvas (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 Canvas and (the PPTs) also posted directly on Canvas. 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 Canvas.

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.

III. Important Notices

1. 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 [Code of Student Conduct](#). If you are unfamiliar with these procedures, you should consult the appropriate section of this governing manual.
2. Please be sure to log into Canvas each week, listen to a lecture, check for assigned readings, and participate in the weekly discussion forum. From my end of Canvas, reports indicate to me when you enter and for how long at all times.
3. All quizzes and exams are closed book, closed notes, no aids.

You are required to use Respondus for each on line test:

All quizzes and exams are closed book, closed notes, no aids.

Using Respondus LockDown Browser and a Webcam for Online Exams

Respondus LockDown Browser is a locked browser for taking exams in Canvas. It prevents you from printing, copying, going to another URL, or accessing other applications during a test. If a Canvas quiz requires that LockDown Browser be used, you will not be able to take the assessment or quiz with a standard web browser. You may be required to use LockDown Browser with a webcam (Respondus Monitor), which will record you during an online exam.

This course requires the use of Respondus LockDown Browser and/or Respondus Monitor with a webcam for the midterm and final online exams. The webcam can be built into your computer or can be the type that plugs in with a USB cable. Watch [this short video](#) to get a basic understanding of LockDown Browser and the webcam feature. A student [Quick Start Guide \(PDF\)](#) is also available.

- a) Download and install LockDown Browser from this link:
<http://www.respondus.com/lockdown/download.php?id=264548414>
- b) Once your download has finished, locate the "LockDown Browser" shortcut on the desktop and double-click it. (For Mac users, launch "LockDown Browser" from the Applications folder.)

- c) You will be brought to the Canvas login page within the LockDown Browser, click “Login with your UCID” to log in with your NJIT UCID and password and then click Login.
- d) Under “My courses”, click on the course in which you have to take the exam that requires the LockDown Browser.
- e) After you enter the course, find the exam and click on it.
- f) A confirmation prompt will appear, click the “Start attempt” button. Once a quiz has been started with LockDown Browser, you cannot exit until the Submit all and finish button is clicked.
- g) If you are required to use a webcam (Respondus Monitor) (and in this course you will be so required), you will be prompted to complete a Webcam Check and other Startup Sequence steps.

4. 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. Taking an online course at NJIT

This is an online course and all course work, lectures, and projects can be completed online in the Learning Management System, Canvas. Students are expected to use Canvas to interact with course content and engage with their classmates. Each week will include designated topics as shown on Canvas with an assignment per topic (usually entry into discussion forum) due every Sunday by midnight. For more information, see [FAQs for Online Courses at NJIT](#).

6. Etiquette

Throughout this course, students are expected to be courteous of classmates by being a polite, active participant. Students should respond to discussion forum assignments in a timely manner so classmates have adequate time to respond to your post. Respect opinions, even those that differ from your own and avoid using profanity or offensive language.

IV. Evaluation : scoring

A 90-100	C+ 75-79	F <60
B+ 85-89	C 70-74	
B 80-84	D 60-69	

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

Note: Exams will be on-line (on Canvas) on dates as shown on Canvas (any changes check Canvas, Canvas rules) This semester: MidT on Saturday Oct 23, 2021, Final on Dec 11, 2021.

1. Midterm examination (40%): There will be a midterm exam comprised of multi choice questions and short essays. This exam will be based on course lectures, discussion sessions, and assigned readings.
2. Quiz (10%): The review questions due at the end of the second Clean Water Act lecture must be completed and SUBMITTED on canvas for grading (this is the only set of Review Q’s that must be submitted, and must be submitted for grading as a take home quiz; all other review questions are for your review purposes each week)

2. Participation: 10% based on participation and responsiveness on Canvas, eg, logging on each week, posting and responding to discussion topics, etc.
 3. Final examination (40%): 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. MidT and Final are closed book no notes, with Respondus Monitor
 4. You may select an optional writing assignment. If optional writing assignment is chosen the midterm will be weighted 30%, 10% participation and responsiveness on Canvas, Final 40% and paper 20%. If you choose the optional paper: You are to prepare and submit via email or Canvas 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 Canvas to receive review questions and summaries each week (not required for submission (except for the set of review questions on Water law), but you must work on these each week to succeed in the course. Discussion items must be posted on Canvas; such regular postings are required and comprise part of your grade as noted above. You must participate by posting regular comments on Canvas discussion forums in order to receive participation points.

Important Dates (See: [Fall 2021 Academic Calendar, Registrar](#))...See last page full calendar

Key dates		
First class	Sept 1	Read Chapter One, as assigned on Canvas
First quiz (after water law Lecture	Sept 26	Material covered in first 4 wks thru CWA
Midterm	Oct 23	Material covered in first 7 weeks thru NEPA
Optional essay due	Nov 20	Re: books assigned on Canvas
Final	Dec 11	Exam date/week as published by NJIT registrar

VI. Course Outline; (see Canvas for any adjustments)

Lectures available for download from NJIT’s Canvas site (link for each week’s material provided on Canvas). We will use Canvas as the central communication forum (check Canvas weekly, email to me via Canvas or at bonchons.njit.edu). The downloaded lectures each week progress through the subject matter as follows and as shown weekly on the class Canvas 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-line at midpoint shown on Canvas website
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

VII. Learning Outcomes:

This is a survey course of major environmental rules, emphasizing the technical limits and standards of each. 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, and will understand their practical applications as scientists and engineers, 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 Canvas (I will send an email on this generally in first week of class). **Both will be held on line on dates midway and during final exam week) designated on Canvas and proctored by NJIT (respondus monitor).**

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 quiz, 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 Canvas email). I look forward to working with you as you join me in examining our system of environmental law.

MP Bonchonsky

Fall 2021 Academic Calendar

September	1	Wednesday	First Day of Classes
September	4	Saturday	Saturday Classes Begin
September	6	Monday	Labor Day
September	8	Wednesday	Monday Classes Meet
September	8	Wednesday	Last Day to Add/Drop a Class
September	8	Wednesday	Last Day for 100% Refund, Full or Partial Withdrawal
September	9	Thursday	W Grades Posted for Course Withdrawals
September	15	Wednesday	Last Day for 90% Refund, Full or Partial Withdrawal - No Refund for Partial Withdrawal after this date
September	29	Wednesday	Last Day for 50% Refund, Full Withdrawal
October	20	Wednesday	Last Day for 25% Refund, Full Withdrawal

November	10	Wednesday	Last Day to Withdraw from Classes
November	25	Thursday	Thanksgiving Recess Begins
November	28	Sunday	Thanksgiving Recess Ends
December	10	Friday	Last Day of Classes
December	11	Saturday	Saturday Classes Meet
December	12	Sunday	Sunday Classes Meet
December	13	Monday	Reading Day 1
December	14	Tuesday	Reading Day 2
December	15	Wednesday	Final Exams Begin
December	21	Tuesday	Final Exams End
December	23	Thursday	Final Grades Due