

**SYLLABUS**  
**Natural Science 2110 – Environmental Science for Teachers**  
 Spring 2022

**Instructor:** Chuck Schick  
**Email:** [cschick@unm.edu](mailto:cschick@unm.edu) or MS Teams chat feature  
**Office Hours:** Monday at 4pm or by appointment  
**Course Textbook:** Environmental Science (towards a sustainable future) 12 Ed. Wright and Boorse

**CLASS SCHEDULE**

| Week No. | Week of: | CLASS TOPICS  | LAB activities  |
|----------|----------|---|---|
| 1        | Jan 17   | Course Overview, Requirements, Policies, etc. Stewardship and Sound Science. What is the difference between science and advocacy?   | No Lab  |
| 2        | Jan 24   | Ecosystems, Structures, biotic & abiotic relationships. Food Web. The flow of energy in the ecosystem   | Data collection, analysis and modeling exercise   |
| 3        | Jan 31   | Ecosystems, Structures, biotic & abiotic relationships.   | CO <sub>2</sub> Trends, plot the trend, make the prediction, verify prediction with recent data                     |
| 4        | Feb 7    | Populations, relationships, succession<br><br><b>Current Events #1 Any related subject</b>  | Population Lab  |
| 5        | Feb 14   | Human Population Trends: Where are We? Where are we going? How fast? Population Problems. TEST #1 REVIEW  | Measuring mass and density  |
| 6        | Feb 21   | <b>Current Events #2 TOPIC, CENSUS:</b> Download or locate and present a topic from the Census that is applicable to population growth trends (Present to class. Summarize the data and tell the class YOUR INTERPRETATION for the future.<br><br>Or what potential problem or good thing is happening<br><i>Yes, we'll expand further about this in class.</i><br><b>TEST#1</b>  | Topo maps exercises   |
| 7        | Feb 28   | <b>Current Events #2 TOPIC, CENSUS:</b> Download or locate and present a topic from the Census that is applicable to population growth trends (Present to class. Summarize the data and tell the class YOUR INTERPRETATION for the future.<br><br>Hydrologic Cycle, Groundwater, Surface Water and Pollution in Storm Water Runoff. Introduction to P2 issues. Brief explanation of current Storm-water Regulations, Surface water Regulations, Groundwater Regulations and their importance for environmental protection. What the EPA does NOT regulate too!! Soil and the Soil Eco-system. | Lab MAP MAKING LABORATORY, <i>Dress to be outside on campus (shoes).</i><br><br><i>Or Groundwater Table mapping</i> |
| 8        | Mar 7    | Hydrology, Climate and Weather (Continued)<br><br>Food Production and Distribution<br>Species Protection and Bio-diversity, Habitat Control   | Temperature & humidity  |

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|----|--------|--|--------------------------------------|
| 9  | Mar 14 | <b>SPRING BREAK!!!!</b>  | <b>Break NO LAB</b>                  |
| 10 | Mar 21 | Species Protection and Bio Diversity, Habitat management<br><br>TEST #2 REVIEW!!   | Soil Sample Collection               |
| 11 | Mar 28 | <b>TEST #2</b><br><br>Hazards to Human Health, Overview of Environmental Regulations and Controlling Government Agencies. Who does what and why (USEPA, NMED, RCRA, CERCLA, OSHA). Plus, Web sites for these agencies and others for your classroom.   | Grain size analysis                  |
| 12 | Apr 4  | Human Health based Risk Assessment- How is it done, what does it mean?<br>Pesticides and Herbicides- What's bugging you and how do pesticides work?<br><br>Water Pollution: Soil, Groundwater and Water Remediation Techniques:<br>Mechanical, using plants, intrinsic, bioremediation, etc. | Groundwater contamination Lab        |
| 13 | Apr 11 | Water Pollution: Soil, Groundwater and Water Remediation Techniques:<br>Mechanical, using plants, intrinsic, bioremediation, etc   | pH lab                               |
| 14 | Apr 18 | Landfills, Solid Wastes, Disposal, recycling etc. Everything you ever wanted to know about Subtitle D Landfills, hazardous waste landfills and special waste landfills   | Household Hazardous waste survey and |
| 15 | Apr 25 | HAZARDOUS CHEMICALS AND WASTE (What's the difference?), Disposal of wastes and Reduction of Exposures<br>ENERGY<br>TEST #3 REVIEW  | Chemical analysis of soil samples    |
| 16 | May 2  | <b>TEST #3</b>   | Lab wrap up                          |

**Make-up Tests:** No Make-up Exams. See Grading Policy below. Also, we can't make up labs. So be there. ALSO, Most of the labs are impossible to make up.

**Grading Policy:** Tests will be approximately 60% of Grade. Best 3 out of 4 Exams (Including the Final). Paper will count for 20% of your Grade. Current event presentations, labs, attendance and games will be assessed at 20%. All percentages are approximate. The goal of grading is to provide you with multiple methods for demonstrating your knowledge and mastery of the material.

**Attendance:** The schools policy will be followed. Therefore, not showing up for class could result in the "system" dropping you from the class. You should attend class regularly and get your notes. I don't give out notes. Part of your education is to process lecture material and put it into your own notes. If you are not going to attend class, please let me know **BEFORE CLASS**. **Lack of attendance will most likely reflect poorly on your final grade.**

**Plagiarism/Cheating:**

I encourage you to talk with one another about assignments before, and while, you do them, but all submitted work must be your own. In addition, if you copy information from textbooks, newspapers, the internet or other media sources you must cite them as your source of information. Blatant copying (plagiarism) will result in a score of zero for all students involved. A second offense will result in you receiving an F for this course. I would like to draw your attention to: [The University of New Mexico's policy on "Dishonesty in Academic Matters"](#):

**Access:**

If you have a documented learning disability, please provide a copy of your letter from **Equal Access Services** as soon as possible to ensure that your accommodations are provided for in a timely manner.

**Electronic Devices:**

To the benefit of you, your classmates and the learning environment **please turn off** electronic devices such as cell phones before class begins. If you wish to use a **laptop or tablet** for note-taking **please press mute** to eliminate distracting noises. Your cooperation in these matters is appreciated by all.

**Title IX:** See <http://www2.ed.gov/about/offices/list/ocr/docs/> for information regarding these rules for a safe classroom for both students and teachers. Also, the Office of Equal Opportunity ([oce.unm.edu](http://oce.unm.edu)) provides more information regarding these matters.

**COVID 19 ISSUES:**

Wear a mask to Class. **NO MASK, NO CLASS.** Check the UNM website for the latest news and information regarding this issue. If you are sick, stay home. Really sick. Please don't abuse the COVID issue and skip class. In person class is crucial to your success. There will probably be changes to our schedules if conditions change. **We will adjust, adapt and overcome.**