**Environmental Science 20 Course Outline**

**Fall 2015**

**Teacher:** Mr. Ziegler (Mr. Z) Room 32

**Course Overview:** Environmental science is the study of humanity’s relationship with other organisms (i.e. – pine trees, seals, etc.) and the physical environment (i.e.- temperature, climate, etc.). It includes many different branches of science such as genetics, biology, ecology, chemistry, geology, and atmospheric science. In addition, environmental science causes people to grapple with ethical questions regarding the impact different decisions could potentially have on the environment. This environmental science course will be broken into 3 components of investigation:

1. Education ***about*** the environment includes students increasing their environmental knowledge by researching information being gathered by scientists regarding the state of the natural world.
2. Education ***in*** the environment ensures students are experiencing the natural world as they pose questions and gather scientific data outside the four walls of the school.
3. Education ***for*** the environment invites students to develop citizenship and advocacy skills to work “on behalf” of the environment. Environmental education has a goal of positively impacting the natural world and humanity’s relationship with it.

**Evaluation:**

This course will be assessed with an **outcomes-based** approach. There are 10 things students should know or be able to do by the end of the course. Each outcome is therefore worth 10**%** and each outcome will be assessed at various points over the course of the semester.

1. Explore environmental science related **career** paths in Saskatchewan, Canada, and the world
2. Understand **what environmental science is** and what it is used for
3. Investigate the impacts of a growing **human population** on the environment, particularly **waste** **production** and management

**AIR**

1. Investigate human impacts on both indoor and outdoor **air quality**
2. Connect how **climate change data** is produced, used, and what this process helps us understand about how science works

**WATER**

1. Analyze the **function** and **condition** of an aquatic ecosystem
2. Understand the importance of **healthy water**

**LAND**

1. Examine different characteristics and types of **soil**
2. Investigate how **plants** work and how humans use plants (medicines, food, etc.)
3. Investigate the connections between **habitat** and **biodiversity**

**Expectations**

1. Students will come ON TIME with all required materials (pens, pencils, binders, etc.)!!
2. No food or drink in the classroom (a lab requires respect in order to reciprocate safety).
3. **RESPECT all persons in the classroom. DISRESPECT will not be tolerated.**
4. When dismissed, leave your desk/lab station and surrounding area in as better condition then when you arrived… aka - CLEAN UP YOUR MESS!!
5. No cell phones – if I see it, it will be confiscated and returned at the end of class.

**Assignments**

1. Respect due dates for assignments! Sometimes due dates are negotiable, please come and talk to me to work something out. In most cases assignments are due at the beginning of class. Assignments turned in more than a week after the initial due date will receive a maximum mark of 50%.
2. Any assignments not handed in will receive a mark of ZERO at the end of the semester. On your progress report it will read NHI (not handed in). You are welcome to hand in almost all assignments for marks up until the end of the semester.
3. If I can’t read it, you don’t get a mark… BE NEAT.

**Labs**

1. **Proper lab technique and safety equipment (ie - wearing goggles) is required at all times. Horse-play or misuse of equipment will not be tolerated and will result in immediate dismissal from the class.**
2. All missed labs must be made up on your own time.
3. Proper lab write up procedures MUST be used.
4. Labs will be due 1 week from the date the lab was performed unless otherwise specified.

**Tests**

1. **THERE ARE NO EXAMS IN THIS COURSE!!**
2. There will be a final exam/project. It will consist of 2 components, a take home, and an in-class essay. The marks for this exam will be tabulated into the various outcome categories.

**Additional help is available at noon hours or after school. Talk to me and help me help you!!**

*I have read the course outline and the requirements for this course and understand what is expected from me during this course. Failing to follow the guidelines above may cause me not to pass this class.*

**\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**PRINT STUDENT’S NAME DATE**

**\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**PARENT’S SIGNATURE** (questions or concerns? Contact Mr. Ziegler at 523-3450(office))