2015

Biology 104 Environmental Biology Online
Summer 2015

Mike Retzer
Parkland College, MRetzer@parkland.edu

Recommended Citation
http://spark.parkland.edu/bio_course/21

Open access to this Course Materials is brought to you by Parkland College's institutional repository, SPARK: Scholarship at Parkland. For more information, please contact spark@parkland.edu.
CAMPUS-WIDE SYLLABUS ADDENDUM
https://cobra.parkland.edu/shared/shared%20content%20files/syllabus_addendum.html
See this document if you have questions about college honesty policies, college resources for your success, or need academic accommodation. ABOUT BIO 104

COURSE DESCRIPTION
Bio 104 examines the relationships of humans to their environment, including consideration of natural cycles and balances, populations, energy, hazardous chemicals, air, water, noise, and solid waste pollution. The hope of the designers of the curriculum is that this course teaches you some of the science of environmental studies while making it interesting and relevant to your lives. There are no prerequisites for this course... all are welcome!

Bio 104 will transfer to virtually all two and four year colleges in the state of Illinois by virtue of its approval as an IAI course (IAI L1 905L). It should also transfer to most colleges and universities outside of Illinois but you should check with the institution you plan to attend to make sure.

COURSE OBJECTIVES
1. To introduce the basic principles and applications of environmental science.
2. To utilize course information in a better understanding of global, national, and local environmental problems.
3. To generate a more informed voting citizen in matters of environmental concern.
4. To increase scientific literacy with regard to environmental science.
5. To recognize that environmental science is an interdisciplinary field.
6. To change personal attitudes and behaviors toward more environmentally sound beliefs and practices.

GENERAL EDUCATION OBJECTIVES (Parkland College):
In the tradition of Parkland College, this course is also dedicated to helping you to recognize your full potential as an educated person. Bio 104 addresses the following general education objectives in some part:
• Demonstrate ability to read, write, listen, and speak effectively;
• Demonstrate ability to think critically, collect facts and make decisions based on them, solve problems using methods of critical and scientific inquiry;
• Demonstrate creative potential;
• Demonstrate ability to use technology to access, retrieve, process, and communicate information;
• Demonstrate understanding of worldwide social, economical, historical, and philosophical ideas;
• Demonstrate ability to understand the necessity of core values in helping them make ethical personal, social, and professional decisions.

SUCCESS IN THIS COURSE
Most of all, we want you to succeed in this course! This document is long, and some of it will seem very strict, and perhaps even negative. It is important to know we are not trying to scare you off, but to inform you of what is necessary to succeed in this course and how to avoid pitfalls that other online students have fallen into.
Devotion
Imagine yourself in an on-campus 4-hr laboratory science class. You would need to be physically in class, listening to lectures, participating in activities, and learning 6 hours a week in a 16-week section (12 hours a week in an 8-week section). This is called “seat time”. It is recommended to spend two hours of studying for every hour of “seat time”. In an online class, you don’t really have seat time, but you are still expected to learn the material and the same amount of time on task is considered reasonable.

You need to think about the time you spend on tasks, and the concrete things you do to aid your learning. You will need to spend a significant amount of time really reading the text, taking notes about what you do not understand, and asking questions of your instructors. One read-through or a good skim will not suffice, and flipping through the pages of the text during a test will not help you to succeed. Likely, 55% of the time for this class will be spent on textbook, discussions, and study guide assignments; 45% on labs and the larger course assignments like footprints.

Science courses often require more work on your part than other types of courses because the information can be challenging, and labs require performing some sort of experiment. Your instructor is here to help you with the science content, but you will really need to pay attention to your study habits, be self-motivated and self-disciplined and force yourself to learn the information.

Science
Often students explain that they are scared of science and they are petrified that they will fail this science course. This course was designed so that anyone who does devote their time will very likely receive a very good grade in the course. A good deal of the grade is participatory, based on the work you do and the amount you learn. Science is a wonderful creative process that involves exploring the world around you. If you can tackle that and learn some vocabulary and important environmental facts along the way, you’ll likely do very well in the course.

Staying on top of things
Probably the most important bits of advice for success are:

- Continually use the Cobra course assignment schedule to watch for due dates and see where you are supposed to be. Everything for the course will be posted on the course assignment schedule, but it is your responsibility to keep up with the course assignment schedule and to check it. Using the excuse, “I didn’t know about that assignment” will never fly for this course.

- Keep up with the assignments and material and don’t get behind! It will be challenging in the online setting to catch up.

- If you find yourself getting behind, or have ANY questions about course material, content, management, or other relevant topics, contact your instructor for help!

- Ask your questions when you have them! Do not wait until the lecture synopsis.

- Please be detailed in your queries to your instructor. This will save time and confusion.

- Participate actively in lab exercises, discussions, and your volunteer activities.
**Asking questions**
Do not feel as if you are all alone behind your computer. Your instructor is here to help you through the information and succeed in the course. However, it is your responsibility to ask questions and indicate that you need help. Your instructors are not telepathic, but they are online frequently and will do their best to help you!

This is a very important point- For some reason, online students do not ask questions about the material as frequently as on-campus students. Any question is a good one! You are paying your instructor to help you, so let them!

**Plagiarism**
There will be none accepted.

This is something your instructors have no tolerance for at all. Plagiarism is trying to use someone else’s words, data, or phrases as your own. It is a form of cheating (as you are not doing your own work) and it is an illegal copyright violation in most cases. It is your responsibility to work at not using others’ words as your own. A few points to think about:

1. Your instructor knows what the textbook says and that you have it. There is no reason for them to grade you on your ability to type things word for word (or even almost word for word) from the textbook. That is a waste of everyone’s precious time (and is illegal). Don’t do it.

2. If you feel that something exactly from the textbook is extremely important to your answer, you must put that phrase, sentence, etc. in quotation marks. Otherwise, you are saying that you wrote it, which you didn’t.

3. Your instructor wants to know what you know so your thinking on a subject, the amount you’ve learned, and your opinions can be examined. Putting someone else’s words in place of your own does not help your grade in this class, despite the fact that you might think someone else says it so much better. This class is meant to be about progression and self-reflection of your own learning, not about regurgitation.

4. As well, an answer that consists of more than 30% quotations is not your answer, but a compilation of other peoples’ words. That type of answer will not be graded either.

5. Once your instructors get to know your writing through discussion boards and assignments, we can easily tell what is and is not your writing. Often, too, plagiarized assignments are choppy, do not answer the question well, and have a very poor use of scientific lingo, so your grade suffers.

6. Access to the internet causes a great deal of temptation to cut and paste from others’ websites. Even cutting and pasting a phrase, a single sentence, or cutting and pasting altering a few words is considered to be plagiarism. The best way to avoid plagiarism is to read the source, make a few notes, put it away, then write your assignment.

7. ANY plagiarized offense that is caught, however small, will be granted a zero without exception.

8. If you feel that you do not understand what is considered to be or not to be your own work, it is your responsibility to contact your instructor in a timely manner.
Deadlines

Deadlines for all course assignments are at midnight on the date posted on the Course Assignment Schedule. To keep the course organized, you accountable, all deadlines will be firm. See the semester course assignment schedule for all due dates and times. We know that “life happens”, so every assignment, has a 3-hr emergency extension until 3am the next date. Most deadlines for this course are on the same evenings, but look ahead for changes due to holidays and reading days. These are deadlines; there is no problem turning things in early! Make personal deadlines that fit your schedule and study habits.

What to expect of your instructor

Your instructor will:
1. Check Cobra email and discussion postings every day Monday- Friday.
2. Respond to your queries Monday-Friday within 36 hours, but usually much sooner.
3. Read and monitor all discussion postings, help direct the conversation, and work to maintain a safe environment for all.
4. Attempt to grade all assignments within two weeks of the due date (1 week for 8-week sections).
5. Post your grades to Cobra in a timely manner.
6. Fix any discrepancy noticed in the course, and return any points lost because of it.
7. Be open to suggestion, comment, and changes in the course while the course is in session.
8. Be firm about deadlines.
10. Treat you honestly, civilly and with respect.
11. Be fair to all students.
12. Do everything possible to help you succeed in the course as long as you are working hard and helping yourself too.

Withdrawals

There is a census date at the beginning of the semester, and your instructor is required to assess your attendance. If you have not attended regularly to that point, you will be withdrawn. After the census date, you should not plan on an instructor withdrawal if you want to drop the course. You are ultimately responsible for your own withdrawal by the withdrawal date. Non-attendance after the census date will result in an F if you don’t withdraw yourself.

General Assignments

Roughly each week you will need to:
1. Complete a unit of study called a module by reading two-three textbook chapters (units) and using the information on a module study guide, then taking a multiple choice module quiz.
2. Perform one 2-hr lab exercise at home and complete the assignments associated with it (submit photos, graphs, take lab quizzes, and/or submit data).
3. Actively participate in one or two asynchronous discussions that usually require a little outside research, reading, or completion of the lab.
4. This schedule is doubled in the 8-week sections.

COURSE ADMINISTRATION

All course components are located in Cobra, a course management system. Please go to the following address
to access the course. Instructions to enter are on the site.

Cobra http://cobra.parkland.edu

Course handouts are typically given to you in HTML, Microsoft Word documents (rtf), Microsoft Excel (xls), Powerpoint (ppt or pps) or in Adobe pdf formats. You must have some word processing program capable of opening an .rtf file, a program to open and write an .xls file, a program to read .pps files, and Adobe Reader or Acrobat to read the .pdf files. All documents were created in 2007 programs, but have been saved as earlier or more general versions. Please contact the instructor if you have difficulties opening any file.

Downloading all files should take minimal time, but you may need to be patient if you have a dial-up internet connection. There are some movies that you will need to view, and these may take many minutes to download. Allow yourself enough time to download the course materials.

COURSE COMMUNICATION

Clear communication is very important as the only way your instructor has to work with you is the virtual format. Please be sure questions are stated clearly, and a little thought is put into requests. For example, if you are concerned about doing better on the next test, don’t simply ask your instructor to help you do better on the next test. The next thing you’ll get from your instructor is a question asking you what you do now, and what your specific concerns about the test are. Tell your instructor what you have been doing, and then ask how you can improve your study habits so you can improve your score.

Be as specific as you can when referring to the textbook, quizzes, and study guides so your questions will get answered in a timely manner.

If you are frustrated with someone, including your instructor, let yourself cool down before you contact your instructor. Blowing off steam in the virtual setting can set a negative tone between you and the rest of the class, and it can be rude. Being frustrated is fine, and making suggestions as to the improvement of the course is absolutely welcome, but bursts of emotion about the state of things don’t do anyone any good.

Please be respectful of all participants in the class at all times. You must allow people to voice their opinions in a safe and open environment, and respectfully voice your own. If your comments are rude, hateful, personalized, or inappropriate, you will be banned from the discussion boards and Cobra mail.

Keep in mind that in an academic setting, professional writing is expected. Please think about capitalization and proper punctuation, avoid using “texting” abbreviations, and do not call your instructor, “Hey you”. While we want to be casual and open, we also need to train you for the work place and being able to communicate in a professional manner is part of that work ethic.

Establishing your student email account http://stu.parkland.edu
Please access this site and establish your Parkland account. All Parkland students have been assigned an e-mail account. Parkland and your instructor will be sending email to this account that may be vital for your success in the course. Your login will be your first initial and last name. Your password will be the last 5 digits of your Social Security number unless you have already accessed the account and changed your password.

Contacting your instructor during the course
Please use the Cobra Mail function to contact your instructor. Please keep in mind that your instructor is not likely glued to their computer 24 hours a day. Your instructor will reply within 36 hrs M-F, but likely well before that.

Discussion with Peers
Within Cobra, use the discussion forums to discuss course topics with your peers. The “Student Communication” topic should be used for ungraded peer communications. This link is located in the Course Resources folder under the Lessons tab in Cobra. You can also send an email with a question to the entire class. This type of communication is encouraged as you will “get to know” your peers in the class better, your instructor might not be able to get back to you as quickly as you’d like, and you learn by answering other students’ questions. This communication also fosters a sense of class community in this virtual setting.

Discussions will be graded similarly to class participation in a regular on campus course. If you are not “present” and active, you will not receive credit. Please read the “Online Discussion Rubric” in the Course Resources folder for details on expectations and grading of required course discussions.

Keep in mind that your instructor can and will read all of the discussion postings. It is imperative to use respectful language and depersonalize your comments at all times.

General
Clear communication is very important as the way your instructor has to work with you most is the virtual format. Please be sure questions are stated clearly.

Be as specific as you can when referring to the textbook, quizzes, and module outlines so your questions will get answered in a timely manner.

Please be respectful of all participants in the class at all times. You must allow people to voice their opinions in a safe and open environment, and respectfully voice your own honest opinions. If your comments are rude, hateful, insulting, personalized, or inappropriate, you will be banned from the discussion boards and/ or Cobra email, and may even be asked to leave the class.

Technical Difficulties
Reliable technology is a requirement for this online course. If you don’t have reliable access to the internet and/or a reliable computer, and a back-up for getting your work done in the case things change, you sincerely should reconsider taking this online course.

Answers to general questions about online courses and technical assistance at Parkland can be found at:
Distance & Virtual Education http://online.parkland.edu

Please contact STAR (Student Technical Assistance & Resources with any questions/problems using Student Email, Cobra, My.Parkland, and Wi-Fi.

You may contact the STAR Hotline at 217/353-3333 or via email at star@parkland.edu.

Library
You may be asked to do research periodically throughout the course. As a Parkland student, you have full
online privileges of the Parkland Library at http://www.parkland.edu/library. You are not restricted to this library, but it is an excellent resource, now linked to over 65 other state libraries.

Requirements

Materials:

1. Required access to textbook: Habitable Planet http://www.learner.org/courses/envsci/
   This is a free online textbook. You can read it on the website or print it out.
2. TWO backup copies of all computer work
3. Access to a reliable internet connection with a minimum connection speed of 28.8 Kbps (kilobits per second).
4. You can check for needed components by going to http://online.parkland.edu/browser.html and testing your browser. If you need anything, you can go to http://online.parkland.edu/downloads.html and download it for free.
5. Microsoft Word or other word processing program that can make a doc or rtf file (the downloads url above has suggestions if you don’t have Microsoft Word)
6. Microsoft Excel or other spreadsheet program that can read and write into an xls file
7. Microsoft Excel or other spreadsheet program
8. Microsoft Powerpoint, or some other way to read pps presentations
9. Parkland Student email account
10. Lab kit purchased from Parkland Bookstore (and redeemed at eScienceLabs) or directly from eScienceLabs (www.esciencelabs.com)
11. Bag of M&M Baking Bits (12 oz bag)
12. A blog unique to this class.

Abilities:

1. Basic word processing
2. Use a browser efficiently to do internet research
3. Download files from Cobra and locate them on your computer
4. Upload (as an Cobra attachment) files into a dropbox.
5. Upload digital photos to Cobra
6. Write a blog post.
7. Use Parkland library to do literature research
8. Diligence in maintaining back-ups of your work
9. Ask questions when you have them

Files
All assignments must be submitted in one of the following file formats:
pdf  rtf  doc  docx  txt  xls  xlsx

NAVIGATING COBRA AND THE COURSE

There will be no make-ups in this class. Deadlines will be firm and no excuses, regardless of their integrity, will be allowed. Despite this, it is good practice to inform your instructor of situations that prevent you from doing an assignment or taking a quiz. Some assignments aren’t really date-sensitive, and the instructor may be able to help you. At the very least, they can help you with the information even if you can’t get the
Here is a description of each course component:

**Calendar**
To see the calendar, you have to go to the course home page, and click on “Calendar” in the middle of the right side of the main page.

You can use the calendar function to find due dates for all assignments and activities, and to get an overall feel for the course layout. You can click on a calendar entry to read more details. If something seems wrong to you, please contact your instructor immediately! If a calendar entry is wrong, you will not be penalized for it.

**Content Tab**
You can find all of the course information under the “Content” tab. The course is divided into 2-week modules (1-week in the summer), with everything you need for those two weeks in a module folder. Content serves as a Table of Contents for the course, with quick links to the quiz or assignment.

**Checklist Tab**
You can find all of the course assignments by week in this tab. The listing is identical to the Course Assignment Schedule. You can use this to check off the assignments as you do them.

**Discussion Tab**
This is the asynchronous system used for peer discussion this course. You can access these forums either through the Content or Discussion tab. Topics related to the content of the course exist for most weeks, and you will need to post entries and responses within the topic. You are responsible for making an initial posting, and for responding with thought to other postings. You will be graded on thoughtfulness, relevance to the material in the module, accuracy, thoroughness, and use of the material. There is an “Online Discussion Rubric” posted under the “Content” tab, then the “Assignments” folder. This rubric explains how your grades will be calculated for discussions.

It is your responsibility to check the discussion boards frequently. Part of your grade is for distributing postings across the week (at least 3 days).

Discussions will help you keep up with the information and will take the place of classroom discussion that happens in an on campus class. You may also see discussion questions on your tests!

**Cobra Mail**
This is an email system within Cobra and all course correspondence with your instructor that is unrelated to discussions should occur within this system. If you have content or technical questions, you should use Cobra Mail. Go to the “Classlist” tab at the top of the Cobra screen, select the person you want to email, then click the Email button at the top of the screen. You can contact any and all members of the course this way.

**Lab Exercises**
During the modules you have labs, you’ll see a folder within the module folder. All lab information will be within this folder. 1-2 virtual lab exercises are scheduled every week and each is designed to take you about 2 hours. Sometimes that two hours must be completed in a single block of time; sometimes it may be
completed over the course of the week. You may be asked to go on a short excursion, perform an experiment in your kitchen, make some observations... lab exercises are meant to be diverse and relevant to your life. Lab exercises do not necessarily reflect what is going on in the modules, though you will be making ties between the two. If at any time you have concerns about the labs, please contact your instructor so you can get help. Lab exercises are due on the due dates on the calendar.

The following are components that might be found within a lab folder:

**Lab Instructions**
- This is a file containing the instructions and assignments for the lab exercise.

**Spreadsheet**
- This is an excel file that has a table that you will need to fill out and submit.

**Dropbox**
- This is a drop box where you attach your completed spreadsheet and submit it for a grade. If no assignment is posted successfully to the dropbox, the assignment is not submitted. It is your responsibility to make sure assignments are posted.

**Photo Submission**
- This is a drop box where you attach an assigned photo (if you have digital photos) and submit it for a grade. You may also mail or email photos to your instructor. You must have a grade of a 3/5 pts on your photo in order to get any credit for the lab.

**Lab Quiz**
- This is a quiz about the lab. The questions may be from the lab, about the lab, or ask you to take lab information into a novel situation. There is no time limit on these quizzes unless you submit it or you hit the due date. You can save your answers until you feel you have everything correct.

**Lab Materials**
For labs, you must purchase a lab kit containing real scientific supplies from escience labs ([www.esciencelabs.com](http://www.esciencelabs.com) or the Parkland Bookstore), and a 12-oz bag of M&M baking bits. Once you received your kit, you have to complete the “Lab Kit Quiz” located in the “General Folder” in the Content Tab by the due date on the course assignment schedule. You must take the quiz to verify that you have all of the materials well before you actually need them. Make sure you order your lab kit right away!

If you do not have a required material in your lab kit, please contact escience labs. If you are missing a recommended piece of household equipment, please contact your instructor. These labs were written with the “general kitchen and bathroom” in mind, but sometimes students don’t have the equipment mentioned. The instructors of this course may be able to come up with alternatives that will work just fine.

If you plan to conduct labs with another student in the class, you must first notify your instructor. You and your lab partner must each submit your own assignments, showing your individual work. The lab photo submitted may be the same.

Because you will be working with some chemicals for some labs, it is prudent that you follow some basic lab safety rules. It is your responsibility to conduct all chemical labs in a safe manner.
Lab Safety Rules
1. No eating and drinking when working with the chemicals included in your lab kits.
2. Always wear gloves, apron, and goggles from your kit.
3. When working with chemicals, clothes should be worn that cover arms, legs, and especially feet, and be sure no clothing, jewelry, or hair dangles into chemicals or catches on apparatuses.
4. Do not use chipped or cracked glassware, particularly to heat something in.
5. Avoid direct contact with any chemical. Treat all chemicals as if they are harmful.
6. Never taste or directly smell a chemical! (Do not eat them!).
7. If you spill a chemical, follow the instructions in the lab kit to clean up.
8. Carefully read the labels of reagents BEFORE you use them. Be sure you are using the correct chemical. Everything is labeled in the lab kit.
9. Make an effort to have a clean laboratory technique. Be careful transferring chemicals from one place to another, clean up after yourself if you spill, throw paper towels and other trash in the trashcan.
10. Read and mind the instructions on where to dispose of chemicals contained in the lab kit.
11. Wash your workspace AND YOUR HANDS at the end of each lab.

Quizzes and Tests
All quizzes will be administered online. Each quiz you need to take will be found within the module folder for the week you are working on, but will close after the due date.

Module Quizzes are multiple choice quizzes that will test your understanding of content, vocabulary, and information from the study guide and text. You must take each quiz by the due dates on the course assignment schedule. Once you begin the quiz, you will get roughly 30-45 minutes to take it. These quizzes are considered “open book”, but you should be prepared as the time limit constrains your ability to look things up. These quizzes are meant only to help you examine your content understanding so you can both answer discussion questions with some eloquence and take short answer tests. For each of these quizzes, you can get one three-hour emergency extension for technology failures, illness, emergencies, etc. Your instructor will be fairly flexible in allowing these extensions, but you may not have another extension.

A comprehensive final exam will be given at the end of the semester. It will either be an oral exam, where you make an appointment with your instructor via skype, phone, or on campus, or it will be an essay exam reading current events articles. You will be asked to prepare responses to comprehensive questions that summarize concepts covered in class. These questions think about the environment and how it works. There is some diversity to these questions, and instructions will be given at the time of the test. The answers to these questions ARE NOT specifically in the study guide or text, but are based on your ability to think about what you should have learned and relate it to your life.

The windows of activation for quizzes and tests cannot, under any circumstances be altered unless prior arrangements have been made to take a quiz or test early. If you can, it is recommended that you plan ahead and take the quizzes and tests earlier than the final due date just to plan for any technical or personal situations.

OTHER ASSIGNMENTS
Blog
You will need to establish a blog just for this class. Use a free blog site! It is recommended to go to edublogs.org, but blogger or wordpress work well, too. Your blog will be used to reflect on your footprint assignments over the semester.

Extra Credit
Though there must be strict policies in place in the online setting for due dates and deadlines, the reality is that there are technology and personal problems that are beyond our control. In order to allow some room for these things, you will be offered up to 30 points of extra credit assignments throughout the semester, and your lowest quiz and discussion scores will be dropped. These points are meant to allow you to make up points if your computer crashes or you have to work overtime, not simply to allow you to procrastinate and blow off assignments.

GENERAL INFORMATION

Doing Your Own Work
Your own work is required in this course. Your instructor cannot emphasize this enough. Prior to the drop date, cheating in ANY form (for example, plagiarizing, copying lab reports or handouts, getting someone else to do your work, copying from the internet, etc.) will earn a zero for the assignment and you risk being dropped or failed from the course depending upon the severity of the offense. Any plagiarism offense will be documented on your permanent educational record without exception. Additional offenses can warrant expulsion from the class or college and fines. After the drop date, cheating in ANY form will earn an "F" for the course. This is especially true for plagiarism from internet sources. For the vast majority of you, the above warning is an insult to your integrity, however must be stated for a small number of students.

If at any time, you do not feel confident in your ability to tell your own work from someone else’s absolutely, please contact your instructor to learn how to tell. Your instructor is here to teach you this too.

Disabilities
If you believe you have a disability for which you may need an academic accommodation (e.g. an alternate testing environment, use of assistive technology or other classroom assistance), please contact: Cathy Robinson, 217-353-2082, crobinson@parkland.edu

Grading
You are responsible for keeping track of your grade and contacting your instructor about your grades if you are concerned about them. If you have any concerns about the grading of any assignment, it is your responsibility to contact your instructor within a week of the date your grade appears in the gradebook. Grade appeals made after that time will not be given consideration. Assignment grades questioned just before the end of the semester will not be altered unless a documentable instructor mistake has been made.

All assignments are due at 11:55pm Parkland Standard Time, but an emergency extension until 3:00a the following morning will be granted for all assignments. At 3:00a, all assignments will be locked and you will be unable to submit your assignments. Only extreme documentable situations will be considered for any further late submission. Plan ahead, stay organized, and communicate with your instructor to stay on top of things!
Quizzes and assignments will be graded online. All grades will be recorded in your Cobra gradebook in a timely fashion.

No points are weighted or curved in this course. Grades will be determined simply on the following scale: A= 90% and above; B= 80% - 89%; C= 70% - 79%; D= 60% - 69%; F= 59% and below.

**A NOTE**
Despite the length and detail of this document, the real goal of this course is for you to have a fun, interesting, and thought-provoking course. The instructors sincerely want your thoughts, opinions, and questions throughout the semester as it will make for a more personally engaging course for you. The ultimate goal is for you to not only see the current state of the world, but learn that you, your creativity, your interests, and your actions do and can make a huge difference to the health of the global ecosystem.

**Bio 104- W251; Summer 2015**

Classes begin M 15 June and end TH 6 August
All due times are at 11:50pm Parkland Standard time, but assignments can be granted a 3-hr emergency extension until 3am. Assignments will not be accepted past 3am without instructor approval.

<table>
<thead>
<tr>
<th>Module/ Due Date</th>
<th>Assignment</th>
<th>Component</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td><em>To complete assignment, you need to do all of these items.</em></td>
</tr>
</tbody>
</table>

**Introduction**

<table>
<thead>
<tr>
<th>Date</th>
<th>Assignment</th>
<th>Component</th>
</tr>
</thead>
<tbody>
<tr>
<td>18 June</td>
<td>Getting Started</td>
<td>Order your lab kit (JUNE 15)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Content Prequiz</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Syllabus Quiz</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Intro Discussion</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Trial Dropbox</td>
</tr>
<tr>
<td></td>
<td>Set up your blog</td>
<td>Blog URL Submission</td>
</tr>
</tbody>
</table>

**Module 1 (The Planet)**

**Readings:** REVEL- Ecosystems and Biomes, Populations and Communities, Biogeochemical Cycles; Cobra- Science of Sustainability Chapter

<table>
<thead>
<tr>
<th>Date</th>
<th>Assignment</th>
<th>Component</th>
</tr>
</thead>
<tbody>
<tr>
<td>23 June</td>
<td>Discussion: Lightbulbs</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Quiz: Module 1</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Blog Post: Ecological Footprint</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Lab Kit Quiz (in Lab Kit folder)</td>
<td></td>
</tr>
</tbody>
</table>

**Module 2 (Demography & Biodiversity)**

**Readings:** REVEL-Human Populations, Biodiversity and Evolution

**Cobra- Diversity Powerpoint**

<table>
<thead>
<tr>
<th>Date</th>
<th>Assignment</th>
<th>Component</th>
</tr>
</thead>
<tbody>
<tr>
<td>30 June</td>
<td>Lab: Demographics Lab</td>
<td>Lab Quiz</td>
</tr>
<tr>
<td></td>
<td>Discussion: Seven billion</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Lab: Natural Selection</td>
<td>Photo</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Lab Quiz</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Graph Submission</td>
</tr>
</tbody>
</table>

<p>| | | |
|                |                            |                                  |
|                | Discussion: Nature Versus Humans |         |</p>
<table>
<thead>
<tr>
<th>Module 3 (Energy)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Readings:</strong> REVEL- Energy Use, Nonrenewable Energy, Renewable Energy</td>
</tr>
<tr>
<td><strong>7 July</strong></td>
</tr>
<tr>
<td>Discussion: History of Energy Use</td>
</tr>
<tr>
<td>Lab: Home Energy Audit</td>
</tr>
<tr>
<td>Lab: Global Energy Budget</td>
</tr>
<tr>
<td>Quiz: Module 3</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Module 4 (Stuff)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Readings:</strong> COBRA- Stuff Powerpoint, Waste Management and Human Health and the Environment Chapters</td>
</tr>
<tr>
<td><strong>14 July</strong></td>
</tr>
<tr>
<td>Activity: Garbage Footprint</td>
</tr>
<tr>
<td>Discussion: Story of Stuff</td>
</tr>
<tr>
<td>Lab: Measurement</td>
</tr>
<tr>
<td>Lab: Alternative Shopping</td>
</tr>
<tr>
<td>Discussion: Toxins</td>
</tr>
<tr>
<td>Quiz: Module 4</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Module 5 (Air)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Readings:</strong> COBRA- Atmosphere and Air Pollution Chapter and Climate Chapter, Air Powerpoint</td>
</tr>
<tr>
<td><strong>21 July</strong></td>
</tr>
<tr>
<td>Lab: Outdoor Air Quality</td>
</tr>
<tr>
<td>Lab/ Blog Post: Home Indoor Air Quality</td>
</tr>
<tr>
<td>Blog Post: Carbon Footprint</td>
</tr>
<tr>
<td>Lab: Carbon Lab</td>
</tr>
<tr>
<td>Discussion: Climate Change</td>
</tr>
<tr>
<td>Quiz: Module 5</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Module 6 (Making Choices)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Readings:</strong> COBRA- Making Choices Powerpoint, Environmental Justice Powerpoint</td>
</tr>
<tr>
<td><strong>28 July</strong></td>
</tr>
<tr>
<td>Quiz: Environmental Justice</td>
</tr>
<tr>
<td>Get soil samples for Soil lead lab next week</td>
</tr>
<tr>
<td>Discussion: TBA</td>
</tr>
<tr>
<td>Lab: Soil Lead Testing</td>
</tr>
<tr>
<td>Discussion: TBA</td>
</tr>
<tr>
<td>Quiz: Module 6</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Module 7 (Water)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Readings:</strong> REVEL- Freshwater</td>
</tr>
<tr>
<td>Date</td>
</tr>
<tr>
<td>-----------</td>
</tr>
<tr>
<td>1 August</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
</tbody>
</table>

**Module 8 (Food Security)**

**Readings:** REVEL - Agriculture  
**COBRA- Food Security Powerpoint, Land Use Chapter**

<table>
<thead>
<tr>
<th>Date</th>
<th>Task</th>
</tr>
</thead>
<tbody>
<tr>
<td>6 August</td>
<td>Get soil samples for NPK lab next week</td>
</tr>
<tr>
<td></td>
<td>Lab: NPK</td>
</tr>
<tr>
<td></td>
<td>Photo Lab Quiz</td>
</tr>
<tr>
<td></td>
<td>Discussion</td>
</tr>
<tr>
<td></td>
<td>Blog Post: Hungry Planet</td>
</tr>
<tr>
<td></td>
<td>Quiz: Module 8</td>
</tr>
</tbody>
</table>

**Finishing**

<table>
<thead>
<tr>
<th>Date</th>
<th>Task</th>
</tr>
</thead>
<tbody>
<tr>
<td>6 August</td>
<td>Final exam due</td>
</tr>
</tbody>
</table>