

COURSE: ISC 211 Living on Earth CREDIT HOURS: 4 Spring, 2013 Section 203 CRN 3783

Lectures –8 a.m. to 9:15 a.m. Tuesdays and Thursdays Room 200 Science Building

Labs - 8 a.m. to 9:50 a.m. Wednesdays Room 200 Science Building

Course Description: A course introducing the basic concepts of environmental science and using the scientific method to study current environmental issues.

Instructor: Samuel T. Colvin Office – 111 Morrow Library Phone: (304) 696-5432

E- mail: colvin8@marshall.edu This is the only e-mail address to which I respond. Please do not send e-mails to any other address or through forums.

Because of the phone system, I can only return local phone calls and often cannot return some cell phone calls. Phone messages are forwarded to my University email address. I often respond to phone messages by email.

I strive to respond to phone calls and e-mails within 24 hours of receipt and will respond if at all possible.

OFFICE HOURS BY ADVANCE APPOINTMENT ONLY: Tuesdays and Thursdays 2 p.m. to 5 p.m. and Wednesdays 2:30 to 5 p.m. I will not be in the office at 111 Morrow Library during these times unless appointments have been made in advance.

Students are encouraged to talk with me in person before class, after class or between scheduled classes. Questions can also be asked by email or phone message.

I AM NORMALLY NOT ON CAMPUS ON MONDAYS, FRIDAYS, SATURDAYS OR SUNDAYS.

MARSHALL PLAN - Upon completion of the ISC component of the Marshall Plan, students will:

1. understand and apply the processes of scientific investigation to gather information and an understanding of the natural universe.
2. know how to distinguish the differences between science and pseudoscience.
3. gather, analyze, and draw conclusions based on valid interpret of data.
4. possess and exhibit improved skills and competencies in research, writing, and oral presentations.

Course Learning Objectives: The students will:

1. learn to think critically
2. understand the scientific method and learn the processes of scientific investigation
3. know how to distinguish the differences between science and pseudoscience
4. gather and analyze data to draw conclusions based on valid interpretation of results
5. garner skills and competencies in research, writing, and presentation
6. acquire knowledge and gain an understanding of natural science

Assessment Tool*		Learning Objective Assessed**					
		1.	2.	3.	4.	5.	6.
A.	Pre test/post test on the scientific process	1	2				
B.	<u>Portfolio Assignment I.</u> Lab Report on the Process of Science. Students will make observations, develop hypotheses, design experiments, collect data, and draw conclusions. Submit as a Word document.	1	2	3	4	5	6

Campus Observation				4	5	
Stream Assessment		2		4	5	6
Risk Assessment		2		4	5	6
Energy					5	6
Biodiversity					5	6
EPS	1	2		4	5	
Compost					5	6
Sustainability					5	6
Ecotourism	1				5	
Jamestown	1	2	3	4	5	6
Water Expert	1			4		6
CAFÉ	1			4		6
Carbon Footprint		2		4	5	6

Course Conduct: Students will work in groups and/or individually to examine the world's current environmental status. Students will gather information from various sources including the Internet, books, and other scientific references. Course materials will be mainly handouts. There is no required text or recommended reading outside of class.

The instructor is responsible to: 1. Introduce concepts and issues. 2. Model a scientific approach. 3. Evaluate student submissions. 4. Make interesting and relevant presentations.

Students are responsible to: 1. Participate in activities 2. Submit individual assignments and assure their proper receipt. 3. Take tests. 4. Remain interested and apply learning to life.

POLICIES:

Students who consistently (2 or more times) come to class late may be subject to a reduction in points not to exceed a one letter grade reduction at the discretion of the instructor.

Attendance is recorded in labs and lecture.

Absences will be excused only with written excuses in accordance with University attendance policy. Students are responsible to make up any work missed because of an excused absence at the next attended class after that absence. No credit will be recorded (1) unless the missed work is made up at the next attended class after the absence and (2) until the University approved excuse is received by the instructor. Only the instructor can amend this policy at his discretion in cases of extreme hardship, but is always willing to listen.

Plagiarism or cheating will result in no credit for that activity and may result in further University sanctions.

It is the student's responsibility to assure the receipt by the instructor of assignments and labs in the prescribed format so that the work can be opened and graded. Work not in the prescribed format or not under the right assignment will be penalized, or at the discretion of the instructor, not accepted for grading. MU Online will be the only acceptable vehicle for submission of work unless the instructor announces a different vehicle. PLEASE DO NOT SEND SUBMISSIONS BY E-MAIL.

Submission deadlines to MU Online are detailed below and will be enforced. Late submissions to MU Online will be accepted with penalty until the cutoff. After the cutoff, MU Online will not allow submissions. Submissions will not be returned. Please keep copies of all work submitted.

Assignments I, II, III and IV are College of Science requirements, must pertain to the topic and references chosen by the student, and must be submitted to MU Online to successfully complete the course. If assignments are not submitted properly, the minimum penalty will be a reduction

in points equaling at least one letter grade reduction for each assignment not submitted. At the discretion of the instructor, the maximum penalty of a failing grade may be levied instead.

Grades will be reported on MU Online allowing students to determine their grade status anytime, but especially prior to course withdrawal deadlines and end of the class. Assignments and labs will be marked, graded and comments (if any) returned through MU Online within two weeks after the due date. It is the student's responsibility to check grades and comments (if any) to assure the proper receipt of and credit for assignments and labs. Final grades are based on the number of points earned out of 1,000. Only point calculations prepared by the instructor are official.

There is no extra credit, re-testing, scaling, or rounding. No work received after the last exam will be graded. The course officially closes at the end of the last exam. After the class is over, please only contact me if I can be of assistance such as being a reference or if you feel there has been a point total error. Please do not contact me attempting to negotiate a better grade.

At the end of the course, the instructor may, in his discretion, consider awarding extra points to a student four points or less away from the next grade level provided that student has completed all assignments, activities, exams and labs in a timely fashion. These are actual points, not percentages.

Questions from students about the class may be asked during class or sent by e-mail to colvin8@marshall.edu. Students are responsible for checking their official University email addresses regularly for important class information and responses to questions.

Due dates and assignments are subject to change. The final word on changes will be announcements in class. Due dates will only be moved back, not forward.

If the instructor must change the time or place of a scheduled event, he will make every effort (1) to announce the change in a prior class, (2) to e-mail students in advance and / or (3) at a minimum to have a sign posted on the original room with the instructor's name on the sign. The same type of notification can be expected if the instructor must cancel a scheduled session.

Some materials used in this class may be copyrighted and should not be shared with individuals not enrolled in this course.

Below is the current University policy related to the granting of incompletes for courses. This policy will be strictly followed.

"Incomplete: The grade of *I* (incomplete) indicates that the student has completed three-quarters of the course, but cannot complete the course for a reason that accords with the university excused-absence policy. Students must be in good standing in the class prior to requesting an incomplete. The course instructor decides whether or not an incomplete will be granted and specifies in writing what work the student must complete to fulfill the course requirements. The student has until the end of the next fall or spring semester from the date of receipt of the incomplete grade in which to complete the course, or the instructor may establish an earlier deadline. If special circumstances exist, which prevent the student from completing the course in the prescribed time, the incomplete may be extended with approval of the instructor, the instructor's chair or division head, and the instructor's dean. If the student satisfactorily completes the course in the prescribed time he/she will receive a letter grade. If the student fails to complete the course requirements during the stipulated time, the grade of *I* changes to a grade of *F*."

- The Greenbook, Marshall University

Other University policies can be found at http://www.marshall.edu/academic-affairs/?page_id=802 (?page_id=802, note underline between page and id) and will be followed. They include:

1. Academic Dishonesty
2. Excused Absence Policy for Undergraduates
3. University Computing Service Acceptable Use
4. Inclement Weather
5. Dead Week
6. Students with Disabilities
7. Academic Dismissal
8. Academic Forgiveness
9. Academic Probation and Suspension
10. Academic Rights and Responsibilities of Students
11. Affirmative Action
12. Sexual Harassment

If the University is on a one-hour delay, (1) the lecture session for that day will not be held, or (2) the lab for that day will start at 9 a.m., whichever is applicable. If the University is on a two-hour delay or classes are cancelled, neither the lecture nor the lab, whichever is applicable, will be held on that day.

Student support, resources and online tutorials are listed on MU Online. Please take advantage of that assistance as needed.

Course Evaluation: Students will be evaluated through :

- (1) Attendance and participation in class (lecture) maximum 90 points (maximum 3 points per class);
- (2) Laboratory activities maximum 280 points (maximum 20 points each lab);

(3) **Exam One** on lecture materials and lab notes maximum 100 points;

(4) **Exam Two** on lecture materials, student presentations and lab notes maximum 100 points

(5) selected topic and references (11 total – 10 real science and 1 false science) for Assignments 1 – 4. Submitted to MU Online as a Word Document. maximum 30 points; **

(6) Assignment I - design an experiment - scientific lab report related to the chosen topic. Students will make observations, develop hypotheses, design experiments, collect data and draw conclusions. Submitted as a Word document to MU Online. maximum 100 points; **

(7) Assignment II - comparative critique of two papers(studies) related to the chosen topic - one chosen as an example of science and the other as an example of pseudo (false) science. Minimum 3 pages, double spaced, submitted as a Word document to MU Online. maximum 100 points; **

(8) Assignment III - written synthesis (report) based on 3 or more references emphasizing scientific findings and the strength of those findings related to the chosen topic. Minimum 3 pages, double spaced, submitted as a Word document to MU Online. maximum 100 points; **

(9) Assignment IV - oral presentation summarizing scientific research related to the chosen topic based on a minimum of 3 additional scientific references. Minimum 10 minutes, submitted as Power Point to MU Online. maximum 100 points; **

A total of 1,000 points is possible.

Grades:	A 90-100%	900 to 1,000 points
	B 80-89%	800 to 899 points
	C 70-79%	700 to 799 points
	D 60-69%	600 to 699 points
	F < 60%	0 to 599 points

** Assignments I, II, III and IV are College of Science requirements, must pertain to the topic and references chosen by the student, and must be submitted to MU Online to successfully complete the course.

COURSE OUTLINE AND SCHEDULE

PLEASE NOTE: Assignments and their submission deadlines to MU Online and cutoff dates for submission are underlined, are detailed below and will be enforced. Late submissions to MU Online will be accepted with penalty until the cutoff. After the cutoff, MU Online will not allow submissions. If there is no submission properly received by the cutoff, no credit will be recorded for that assignment.

Tests are in bold.

Labs and Lectures

Week 1	1/15 - syllabus, get acquainted	1/16 – Lab 1	1/17 - explanation of assignments	1/18 last day to add/drop class
Week 2	1/22 – environmental scientist, scientific method, critical thinking	1/23 – Lab 2	1/24 - basic science, non-living systems	
Week 3	1/29 - basic ecology concepts, living systems	1/30 – Lab 3	1/31 - energy	
	1/31 - <u>Topic & references for Assignments I, II, III, & IV submitted to MU Online by 11:59 pm.</u>			
Week 4	2/5 - earth and crust, soil	2/6 - Lab 4	2/7 - land use, land biomes	

Week 5 2/12 - food/hunger/nutrition 2/13 – Lab 5 2/14 - population, biodiversity

2/14 – Cutoff for submission of topic and references to MU Online by 11:59 p.m.

2/14 - Assignment I - Design of Experiment submitted to MU Online by 11:59 pm.

Week 6 2/19 - water, water biomes 2/20 – Lab 6 2/21 - water pollution / treatment

Week 7 2/26 – air, weather, climate, climate change 2/27 – Lab 7 2/28 - air pollution / treatment

Week 8 3/5 - environmental health, risk 3/6 – Lab 8 3/7 - solid waste, recycling, composting

3/7 - Assignment II - Critique submitted to MU Online by 11:59 pm.

Week 9 3/12 – sustainability, local environmental issues, review 3/13 – Lab 9 3/14 – **Exam One**

3/11 - Noon Deadline for Mid-Term D/F Reports for Freshmen

Week 10 Spring Break – No classes or lab

Week 11 3/26 - environmental problem solving 3/27 – Lab 10 3/28 – environmental policy/regulations

3/29 Last day to drop individual course

Week 12 4/2 4/3 – Assessment Day – No lab 4/4

“Wednesday, April 3 is Assessment Day. The hours of 8:00 – 4:00 are set aside for university assessment activities. All seniors graduating in May, summer, or December of 2013 should be present from 10:00 – 11:30 to complete a senior assessment. A free lunch on the MSC Plaza will follow immediately afterward. Students other than graduating seniors should check with their departments for Assessment Day schedules.”

4/4 - Assignment III - Synthesis submitted to MU Online by 11:59 pm.

Week 13 4/9 – Special Topics 4/10 – Lab 11 4/11 - Special Topics

Week 14 4/16 - Student Presentations 4/17 - Lab 12 4/18 - Student Presentations

4/16 – Campus observance of Earth Day

Week 15 4/23 - Student Presentations 4/24 - Lab 13 4/25 - Student Presentations

4/25 - Assignment IV - Power Point submitted to MU Online by 11:59 pm

Week 16 4/30 – Student Presentations 5/1 - Lab 14 5/2 - Last class, Review

4/29 to 5/3 - Dead Week

5/2 - Cutoff for all assignments, make-up exams and make-up labs at 11:59 pm. No work submitted after that time will be considered or graded.

5/9 - **Exam Two** Thursday 8 a.m. to 10 a.m.

The course officially closes at 10 a.m., Thursday, 5/9.

BIOGRAPHICAL SKETCH

Sam Colvin received a bachelor's degree and a master's degree from WVU. He has taken postgraduate courses at Marshall.

Sam has worked on environmental issues since the first Earth Day in 1970. He has been employed at the city, county and state levels in West Virginia. He was an Extension Agent for two years and the Community Development Director of Huntington for three years. He served as Executive Director of the WV Resource Recovery-Solid Waste Disposal Authority for eleven years. He was a market development representative for a major environmental company for one year. He has operated an environmental consulting business since 1990.

Sam has been a member of the WV Solid Waste Management Board and the WV Water Quality Advisory Committee. He served two years as Executive Director of the Ohio River Basin Consortium for Research and Education.

Sam's major environmental emphasis is solid waste, including recycling and composting. He is a certified yard waste facility operator and has received the National Backyard Compost training and the Compost Facility Best Management Practices training.

Sam has taught at Marshall since the spring of 2000. He has taught First Year Seminar 100, Integrated Science (ISC) 211 Living on Earth, Integrated Science and Technology (IST) 111 Living Systems, IST 320 Nature of Environmental Problems, and IST 321 Resolution of Environmental Problems. He has been involved in two Campus Compact service learning grants.

Sam has completed Sustainability Awareness, Pollution Prevention and Environmental Management System training sponsored by WV Department of Environmental Protection, the National Pollution Prevention Roundtable and Bridgemont Community & Technical College.

His current research and service projects include: (1) Monitor and modify as needed the IST 320 online course; (2) Continue work on improvement of the impaired Fourpole Creek; (3) Continue evaluation of state-mandated waste reduction goal of 50%; (4) Monitor the reclamation of the former City of Huntington landfill; (5) Study the WV solid waste management system.

Sam lives in rural Wayne County, WV with his wife, Prudence, a retired elementary teacher. They are active as volunteers in church and community activities. Sam is a volunteer assistant high school baseball coach. Their two sons, Andrew and Samuel, are college students and aspiring Army officers.