

## Marshall University Syllabus

<b>Course Title/Number</b>	IST 212 Energy CRN 3711 Section 202
<b>Semester/Year</b>	Spring 2015
<b>Days/Time</b>	2 - 315 pm Tuesdays and Thursdays
<b>Location</b>	Science 200
<b>Instructor</b>	Samuel T. Colvin
<b>Office</b>	Morrow 111
<b>Phone</b>	304 696 5432
<b>E-Mail</b>	<a href="mailto:colvin8@marshall.edu">colvin8@marshall.edu</a>
<b>Office Hours</b>	930 – 11 am Tuesdays & Thursdays. By prior appointment only, 315 – 5 pm Tuesdays & Thursdays
<b>University Policies</b>	By enrolling in this course, you agree to the University Policies listed below. Please read the full text of each policy by going to <a href="http://www.marshall.edu/academic-affairs">www.marshall.edu/academic-affairs</a> and clicking on "Marshall University Policies." Or, you can access the policies directly by going to <a href="http://www.marshall.edu/academic-affairs/policies/">www.marshall.edu/academic-affairs/policies/</a> . Academic Dishonesty/Excused Absence Policy for Undergraduates/Computing Services Acceptable Use/Inclement Weather/Dead Week/Students with Disabilities/Academic Forgiveness/Academic Probation and Suspension/Academic Rights and Responsibilities of Students/Affirmative Action/Sexual Harassment

**Course Description: From Catalog**

The course introduces the students to the properties and the interfaces of biological and physical systems with emphasis upon energy concepts, production, and distribution in both systems.

<b>Department and course student learning outcomes</b>	<b>How students will practice each outcome in this course</b>	<b>How student achievement of each outcome will be assessed in this course</b>
1. Students will demonstrate proficiency in the utilization of contemporary technologies or tools to solve real-world problems.	texts, instructor modeling, activities	exams, plans, analyses, assignments
2. In the development of a research project, students will scientifically analyze data, evaluate and incorporate relevant research, and describe potential implications.	texts, instructor modeling, activities	exams, plans, analyses, assignments
3. Students will effectively communicate in relating findings and recommendations resulting from projects.	texts, instructor modeling, activities	exams, plans, analyses, assignments

### **Required texts**

Energy Explained Volumes 1 and 2, Vikram Janardhan and Bob Fesmire 2011 Rowman and Littlefield

ISBN 9781442203723 hardback 9781442203727 electronic

### **Course Requirements/Due Dates**

Attendance 100 points (minus 3 for each unexcused absence)

Assignments 150 points throughout the semester

Analyze the future of fossil fuels 100 points due to MU Online by 11:59 p.m. 2/19

Exam One 75 points on 2/26

Analyze the future of renewable energy 100 points due to MU Online by 11: 59 p.m. 3/12

Analyze the future of nuclear energy 100 points due to MU Online by 11:59 p.m. 3/26

Recommend an energy course of action for a U. S. state of your choice between now and the year 2025  
100 points due to MU Online by 11:59 p.m. 4/9

Develop and evaluate an energy plan for the U. S. for the year 2050 100 points due to MU Online by  
11:59 p.m. 4/16

Perform personal energy audit and develop personal conservation plan 100 points due to MU Online  
11:59 p.m. 4/23

Cutoff for submission of all work to this point due to MU Online by 11:59 p.m. 4/30

Exam Two 75 points on 5/7 1245 - 245 p.m. covering everything after Exam One

### **Grading Policy**

A total of 1000 points is possible.

Rubric for Grading – Department and Course Learning Outcomes 1A - Demonstrate technological fluency. 1B - Develop two reliable strategies. 2A - Evaluate evidence. 2B - Analyze research literature. 2C - Identify limitations/implications. 3A - Submit well-structured product. 3B - Use proper language/mechanics/delivery. 3C - Use respected supporting material.

#### **Percentages and Points**

Grades: A 90-100% 900 to 1000 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

## Attendance Policy

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.

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.

## Course Schedule

### Important Dates Spring 2015

1/12 Classes begin  
1/16 Schedule adjustments end  
1/19 Holiday - Martin Luther King, Jr.  
3/9 Fr/Soph mid term grades  
3/16 - 21 Spring Break  
3/27 Last day to drop individual course  
4/27 - 5/1 Dead Week  
5/2 - 8 Exams  
5/9 Commencement

Week 1 - 1/13 class cancelled -Memorial Service assignments	1/15 syllabus, get acquainted, explanation of
Week 2 - 1/20 energy and energy for life	1/22 energy and energy for life
Week 3 - 1/27 Text Volume 1 Preface, Chapters 1, 2	1/29 V1 -3, 4
Week 4 - 2/3 V1 - 5, 6	2/5 V1 - 7, 8
Week 5 - 2/10 V1 - 9, 10	2/12 V1 - 11
Week 6 - 2/17 V1 - 12	2/19 V1 - 14, 15
Week 7 - 2/24 V1 - 16, 17 except 13)	2/26 - Exam One (covering V1 - Chapters 1 - 17
Week 8 - 3/3 Text Volume 2 - Chapters 1, 2	3/5 V2 - 3, 4
Week 9 - 3/10 V2 - 5, 6	3/12 V2 - 7, 8
Week 10 - 3/24 V2 - 9,10	3/26 V2 - 11, 12

Week 11 - 3/31 V2 - 13	4/2 V2 - 14, 15
Week 12 - 4/7 V2 - 16, 17	4/9 V2 - 18, 19
Week 13 - 4/14 V2 - 20, 21	4/16 V2 - 22, 23
Week 14 - 4/21 V2 - 22, 23	4/23 V2 - 24, Epilogue
Week 15 - 4/28 V1 - 13, 18	4/30 V1 - 19, 20
Exam Two 75 points on 5/7 1245 - 245 p.m. covering everything after Exam One	

## **Other Policies**

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

Work not in the prescribed format 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. Submission to MU Online is required so that submissions become part of the permanent record of the class. Late submissions to MU Online will be accepted with penalty until the cutoff. After the cutoff, MU Online will not allow submissions. Please do not e-mail submissions to me.

Submissions will not be returned. Please keep copies of all work submitted.

No work received after the class ends will be graded.

Grades will be reported in MU Online allowing students to determine their grade status anytime, especially prior to course withdrawal deadlines and prior to the final. Assignments will be marked, graded and comments 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 or re-testing. Scaling may be used at the discretion of the instructor in grading the submissions. At the end of the course, the instructor may, in his discretion, consider awarding extra points to a student less than five points (actual, not percentage) away from the next grade level provided that student has completed all assignments in a timely fashion.

Questions from students about the class may be sent by e-mail to [colvin8@marshall.edu](mailto:colvin8@marshall.edu).

Due dates and assignments are subject to change. Due dates will only be moved back, not forward.

Below is the current University policy related to incompletes for courses. It 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

[colvin8@marshall.edu](mailto:colvin8@marshall.edu) 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. I normally check and return phone calls and e-mails only when on campus, but I do respond if at all possible.

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

#### Instructor Schedule – Spring 2015

Tuesdays and Thursdays

8 – 915 IST 220 Science 200

930 – 11 Office Morrow 111

11 – 1215 IST 120 Morrow Commons

1230 – 145 IST 321 Science 200

2 – 315 IST 212 Science 200

315 - 5 By prior appointment only, in office

IST 320 Online only

Faculty meeting noon – 1 every other Friday starting 1/16 and ending 5/8

#### INSTRUCTOR 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 was appointed as the first WV Youth Adviser to the newly-formed U.S. Environmental Protection Agency. As a student, he worked on a federally funded environmental education grant developing and testing course materials from elementary school to college level. He served a six month internship with the WVU Extension Environmental Education Specialist.

Sam has been employed at the city, county and state levels in West Virginia. He was an Extension Agent for two years, administrative assistant for admissions to the MU School of Medicine for six months, 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 120 Connections I, IST 220 Connections II, IST 212 Energy, IST 320 Nature of Environmental Problems, and IST 321 Resolution of Environmental Problems. He has been involved in two Campus Compact service learning grants. He has completed Quality Matters for online teaching, critical thinking and service learning training.

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. Prudence graduated from Marshall with bachelor's and master's degrees and is now retired after 34 years as an educator – 27 as an elementary teacher and 7 as a reading coach. They are active as volunteers in church and community activities. Sam is a volunteer assistant high school baseball coach.

They have two sons.

Andrew is a May, 2013 environmental engineering graduate of the United States Military Academy at West Point and an August, 2014 honor graduate of the Naval Dive School. He is currently a first lieutenant in the Army serving as an engineer dive officer.

Samuel graduated in May, 2014 with honors from the University of Charleston and was selected as Senior of the Year. He served as battalion commander of the Army ROTC combined programs for WV State, Glenville State, WVU Tech and the University of Charleston and was named Cadet of the Year. He is currently a second lieutenant in the Army serving as a military intelligence officer.