IST 212 sec.201– Energy 3 hrs

CRN 3710 12:30pm – 13:45pm TR ML 119 Spring 2015

**Instructor:**

Thomas G. Jones

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**Required Text:**

Energy Explained vols. 1 & 2. Vikram Janardhan and Bob Fesmire 2011

ISBN 978-1-4422-0372-3 hardback

ISBN 978-1-4422-0372-7 electronic

Shale Gas: The Promise and the Peril. Vikram Rao. 2012

ISBN: 978-1-9348-3110-6 paperback

**Course Description:**

The production and use of energy underpins our modern lifestyles. Students will investigate topics ranging from fossil fuel extraction to electrical generation and the transfer of the energy around the country. West Virginia is pivotal in all these energy topics.

**Course Student Learning Outcomes and Assessment Measures:**

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| --- | --- | --- |
|  | How Practiced in this Class | How Assessed in this Course  |
| Introduce students to the relationship between themselves and the worlds’ energy sources. | Class lecture (CL), Hands on examples and discussion (HOED) | Class projects, paper, & presentation  |
| Detail the likely alternative energy sources of the future. | CL, HOED | Class projects, paper, presentation, quizzes & exams |
| Discover the positives and negatives of many energy sources. | CL, HOED | Class projects, paper, presentation, quizzes & exams |
| Investigate the role of transportation with energy production. | CL, HOED | Class projects, paper, presentation, quizzes & exams |
| Relate the scientific method to daily life and decisions. | CL, HOED | Class projects, paper, presentation, quizzes & exams |
| Students will use general computer programs and email. | CL, HOED | Class projects & paper |
| Students will use above techniques to collect data, analyze it and present findings using power point and mini videos.  | CL, HOED | Class projects, paper, presentation, quizzes & exams |

**Class Attendance:** In this course the instructor will require active participation of each student during each class meeting. Class participation points and homework will only be accepted late, when accompanied with appropriate documentation. By missing class you will not be able to participate in class discussions and the class will not benefit from your ideas and comments. If you are absent, you must contact the professor as soon as possible.

**Students with Disabilities:** Marshall University is committed to equal opportunity in education for all students, including those with physical, learning and psychological disabilities.  University policy states that it is the responsibility of students with disabilities to contact the Office of Disabled Student Services (DSS) in Prichard Hall 117, phone 304 696-2271 to provide documentation of their disability.  Following this, the DSS Coordinator will send a letter to each of the student’s instructors outlining the academic accommodation he/she will need to ensure equality in classroom experiences, outside assignment, testing and grading.  The instructor and student will meet to discuss how the accommodation(s) requested will be provided.  For more information, please visit <http://www.marshall.edu/disabled> or contact Disabled Student Services Office at Prichard Hall 11, phone 304-696-2271.”

The reason for this request is so that students with disabilities understand both their rights and responsibilities regarding requesting accommodations.

**Policy on Academic Dishonesty:** I take cheating very seriously. I will follow the student handbook on definitions and actions precisely.

**Other Policies:**

By enrolling in this course, you agree to the University Policies listed below. Please read the full text of each policy be going to [www.marshall.edu/academic-affairs](http://www.marshall.edu/academic-affairs) and clicking on “Marshall University Policies.” Or, you can access the policies directly by going to <http://www.marshall.edu/academic-affairs/?page_id=802>

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

**Requirements:**

 Assignments Possible Points

 Debate 100 pts

 Class Participation 300 pts

 Paper 100 pts

 Group Presentation 200 pts

 Reading Quizzes 100 pts

 Knowledge Celebration 1 100 pts

 Knowledge Celebration 2 100 pts

 Total: 1000 pts

**Assignment Details:**

1) Impromptu debate format between small groups chosen by students. Topics chosen by groups but must be OK’d by professor.

2) Points for class participation come from a series of small tasks assigned during class time. These brief projects will be submitted via email.

3) Students will complete a 5 page papers on chosen topics. Papers will have a minimum of 10 citations with no more than 6 web pages. One citation must be a book not including dictionaries, thesaurus, etc. The paper will be argumentative in format.

4) Students will form groups of 4 to present a 20 minute multimedia presentation for the class. Topics will be verified with the professor. No repeat topics. “First Come…First Serve” on topics so turn them in early! Each student must speak for a minimum of 5 minutes.

5) Most classes will begin with a simple 10 point quiz on the reading materials assigned. The goals of these quizzes are to inform students on their current retention of assigned readings and to introduce topics for discussion.

6) Two knowledge celebrations “written exams” will be given. The first exam will be given at midterm and the second as a final.

**Grading Scale:**

 90% - 100% = A

 80% - 89% = B

 etc…

**Office Hours**

Tuesday 8:00 am to 10:15 am and 2:30 to 3:30 pm; Wednesday 1 pm to 5 pm if scheduled ahead of time; Thursday 2 pm to 4 pm

**Schedule**

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| Topics: Week | Subject | Readings |
| Week 1  | Introduction | Syllabus |
| week 2  | Intro | Chapters 1 & 2 |
| week 3  | Oil | Chapters 3 & 4 |
| week 4  | Oil | Chapters 7 & 8 |
| week 5  | Oil | Chapters 9 & 10 |
| week 6  | gasoline | Chapters 5 & 6 |
| week 7  | **Midterm**Chapters 1- 10 | Chapter 11 Coal |
| week 8  | Marcellus | Chapter 12 natural gas |
| week 9  | Electricity | Chapters 14 &15 |
| week 10  | Natural Gas | Shale gas book |
| week 11  | Electricity | Volume 2: chapter 15 |
| week 12  |  | Chapters 16 & 17 |
| week 13  |  | Volume 2:Chapters 1 & 2 |
| week 14  |  | Chapters 5, 9, & 10 |
| week 15  |  | GROUP PRESENTATIONS |
| Week 16  |  | GROUP PRESENTATIONS |
| Week 17  | **Final week**Chapters  | Final exam Dec 6-10 |

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| Topics: Week | Subject | Readings |
| Week 1 Jan 14 | Introduction | Syllabus |
| week 2 Jan 21 | Intro | Chapters 1 & 2 |
| week 3 Jan 28 | Oil | Chapters 3 & 4 |
| week 4 Feb 4 | Oil | Chapters 7 & 8 |
| week 5 Feb 11 | Oil | Chapters 9 & 10 |
| week 6 Feb 18 | gasoline | Chapters 5 & 6 |
| week 7 Feb 26 | **Midterm**Chapters 1- 10 | Chapter 11 Coal |
| week 8 Mar 4 | Marcellus | Chapter 12 natural gas |
| week 9 Mar 11 | Electricity | Chapters 14 &15 |
| week 10 Mar 18 | **No class this week** | **Spring Break** |
| week 11 Mar 25 | Electricity | Volume 2: chapter 15 |
| week 12 April 1 |  | Chapters 16 & 17 |
| week 13 April 8 |  | Volume 2:Chapters 1 & 2 |
| week 14 April 15 |  | Chapters 5, 9, & 10 |
| week 15 April 22 |  | GROUP PRESENTATIONS |
| Week 16 April 28 |  | GROUP PRESENTATIONS |
| Week 17 May 6 | **Final week**Chapters  | Final exam May 6 12:45 |