



**21 Fall Semester**

## **Energy Industry Fundamentals**

### **EGY 101.I60**

**Number of Credits:** 3

**Days Class Meets:** 10/26 - 12/18

**Meeting Times:** Optional, Wednesday, 3 – 4 pm

**Location/Venue:** Online, Big Blue Button

**Instructor:** Eddie Burkhead

**Contact Phone:**

**Contact Email:** BurkheaEdwardL@jccmi.edu

**Online Office Hours:** Thursday: 10 – 1 pm, 4 – 6 pm **In Person Office Hours:** Thursday: 1 – 4 pm

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### **Course Description**

Energy Industry Fundamentals provides a broad understanding of the electric and natural gas utility industry and the generation, transmission, and distribution infrastructure, commonly called the "largest machine in the world," which forms the backbone for the industry. The course includes business models, regulations, types of energy and their conversion to useable energy such as electric power, emergent technologies, and the connection to careers in the energy industry. A CEWD accredited EIF Certificate will be awarded upon successful completion of final certification exam

### **Prerequisite(s)**

Insert listing of official prerequisites as found in the college catalog.

### **Course Goals**

To gain a fundamental understanding of the systems and technology of the energy grid.

### **Course Objectives**

Students will explain the history of the energy grid and the use of electricity

Students will diagram how the grid functions, from generation to distribution

Students will explain how traditional and alternative energy generation sources work

Students will list the advantages and disadvantages of different energy sources

Students will explain the government's role in managing the electrical grid  
Students will explain the general laws and standards utility companies must abide by

## Textbook (chose appropriate options below, delete what does not apply)

- List required textbook by title and ISBN.
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**Digital Format:** This text is available in a digital format to rent or purchase through the JC Bookstore. Please see the links posted on your class JetNet site.

**Open Educational Resources (OER):** OERs are teaching, learning, and research materials that are either (a) in the public domain or (b) licensed in a manner that provides everyone with *free permission* to:

- Retain – make, own, and control a copy of the resource
- Reuse – use your original, revised, or remixed copy of the resource publicly
- Revise – edit, adapt, and modify your copy of the resource
- Remix – combine your original or revised copy of the resource with other existing material to create something new
- Redistribute – share copies of your original, revised, or remixed copy of the resource with others

**No Textbook Required:** If no textbooks are *required*, students will not have to purchase books for the course.

Please review the cost of your required materials to determine the best option for you to purchase your materials.

Please note, your opt out selection is for your *entire* semester schedule. You cannot opt out/opt into individual courses. And you must opt out by the due date of your first class, which is the 3<sup>rd</sup> day after the start of your earliest course.

[Learn new textbook program at JC](#)

For account billing questions, please contact the Jackson College Cashier at [jccashier@jccmi.edu](mailto:jccashier@jccmi.edu)

## Grading Procedure

Each Unit has two to three quizzes. Each question is worth one point towards your final grade.

Taking the EIF exam at the end is worth 25 points. Your score on the exam does not impact your final grade. TOTAL: 3000 points

## EIF Exam

This course requires that you take an Energy Industry Fundamentals exam. This exam is NOT a final exam. If you fail the exam, you are not penalized. Taking the exam will give you all the points for this assignment. Not taking the exam will give you none of the points for this assignment.

You will be contacted by the Testing Lab early in the semester to schedule your exam. You need to check your **JC email** in order to make sure this gets scheduled in a timely manner. Please watch for communications from the Testing Lab and your instructor.

The exam will be taken on JC's campus unless you live further than 2 hours away. If you live further than 2 hours away, please notify the Testing Lab.

If you fail to sign up for the test, you will have to take it the following semester. If you fail the test and would like to take the test again, you can do so for a small fee. Contact the Testing Lab for more information.

## Grading Scale

GPA	GRADE RANGE
4.0	94-100%
3.5	89-93%
3.0	84-88%
2.5	78-83%
2.0	72-77%
1.5	66-71%
1.0	60-65%
0.5	55-59%
0.0	0-54%

## Failure

Any grade below 2.0 is failing.

## Academic Honesty Policy

Academic Honesty is defined as ethical behavior that includes student production of their own work and not representing others' work as their own, by cheating or by helping others to do so.

## Plagiarism

Plagiarism is defined as the failure to give credit for the use of material from outside sources. Plagiarism includes but is not limited to:

- Submitting other's work as your own
- Using data, illustrations, pictures, quotations, or paraphrases from other sources without adequate documentation
- Reusing significant, identical or nearly identical portions of one's own prior work without acknowledging that one is doing so or without citing this original work (self-plagiarism)

## Cheating

Cheating is defined as obtaining answers/material from an outside source without authorization. Cheating includes, but is not limited to:

- Plagiarizing in any form
- Using notes/books/electronic material without authorization
- Copying
- Submitting others' work as your own or submitting your work for others
- Altering graded work
- Falsifying data
- Exhibiting other behaviors generally considered unethical
- Allowing your work to be submitted by others

## Accessibility

Jackson College understands that cultivating a broadly diverse community is crucial to our educational mission and to our foundational commitment to leadership and service. Jackson College is fully committed to ensuring our courses are accessible to everyone including those with disabilities. We are currently working to increase accessibility and usability of our course materials in order to meet or exceed the requirements of Section 508 of the Rehabilitation Act of 1973, the Americans with Disabilities Act of 1991 and Web Content Accessibility Guidelines (WCAG) 2.0. For more information about Jackson College's efforts to ensure accessibility please visit the [Jackson College accessibility web page](#).

If you have an accessibility need in any of our classes please e-mail the Center for Student Success at [JCCSS@jccmi.edu](mailto:JCCSS@jccmi.edu) or visit the [Center for Student Success web page](#).

At the Center for Student Success (CSS), we are committed to providing all students the opportunity to achieve academic success by providing a variety of support services free of charge to Jackson College students. This includes, but is not limited to, peer and faculty tutoring, mental health referral, temporary assistance with transportation, various workshops/seminars, and the TRIO program.

In addition, the CSS staff is committed to adapting the College's general services to meet the individual needs of otherwise qualified students with disabilities, for the purpose of providing equal access to all programs and facilities.

## **Course Management**

This course is self paced. The instructor will provide a pacing guide for students.

## **Makeup Policy**

All work is due at the end of the semester. Quizzes may be retaken one time. Contact your instructor for more information.

## **Help**

Available learning services or opportunities for students seeking help with their course work. May include information about tutors, learning centers, reserved library materials, counseling services.

## **Academic Advising**

It is important to contact a Center for Student Success professional prior to the start of the semester in order to receive accommodations in a timely manner. While we will make every effort to coordinate accommodations in a timely manner, failure to self-identify prior to the start of the semester may delay notification to instructors and timeliness of acquiring accommodations. Accommodations do not automatically carry over to the next semester. Please e-mail [JCCSS@jccmi.edu](mailto:JCCSS@jccmi.edu) or visit the [Accommodations for Students with Disabilities](#) web page

## **Student Responsibilities**

You must communicate with your instructor in a timely manner.

## **Attendance- Participation Policy**

Regular class participation and keeping up on the reading and assignments is strongly correlated with survival in college. It is my recommendation that you plan to do your assignments and take your exams BEFORE the last day they are due. If problems occur, there is time to fix them before the deadline.

In compliance with Federal Title IV funding requirements, as well as college initiatives, I will be monitoring student participation on a regular basis and officially reporting student activity throughout the term to assure compliance with college policy and federal regulations. It is imperative that you log in to the course and actively participate within the first couple of days of the term to validate your enrollment in the course. After that, not actively participating in class may result in you being withdrawn from the course. Being withdrawn from a course can have an impact on financial aid, billing, athletic eligibility, and housing status.

As a college student you are responsible for how your participation impacts your academic progress; the accountability lies with you.

## Caveat

Please note: The format and timing of this course may need to change due to unforeseen circumstances. In particular: school closings, instructor illness, weather, or other situations that may arise.

If you are taking an in-person class, you will be required to complete a Reintegration Video Training course in JetNet prior to being admitted to campus.

All COVID safety protocols in place are based on current guidelines and will be enforced while students are on campus.

## Calendar

A partial or complete list of dates or class periods for the course. Within the calendar on specific days are: Assignments, readings, homework, exercised, performances, quizzes, topics, subject matter, skills, chapter titles, discussion topics, tests, comprehensive exams, due dates for major papers or performances. Add or remove columns as necessary to suit your course.

*\*Also include a statement that calendar timelines and assignments are an approximation and could be changed.*

WEEK #	DATE	TOPIC	HOMEWORK
1	10/26	ENERGY INDUSTRY OVERVIEW	UNIT 1 EXERCISES
2	11/1	GENERATION	UNIT 3 EXERCISES
3	11/8	TRANSMISSION	UNIT 4 EXERCISES
4	11/15	DISTRIBUTION	UNIT 5 EXERCISES
5	11/29	SAFETY	UNIT 2 EXERCISES
6	12/6	EXAM PREP	NONE
7	12/13	EIF EXAM	EIF EXAM

## Important Dates:

<b>MONDAY 09/06/2021</b>	<b>LABOR DAY HOLIDAY-NO CLASSES</b>
<b>WEDNESDAY 11/24- SUNDAY 11/28/2021</b>	<b>THANKSGIVING HOLIDAY-NO CLASSES</b>
saturday 12/18/2021	End of fall Semester