# Research & Development for Energy Course No. 41250 Credit: 0.5

|  |  |  |  |
| --- | --- | --- | --- |
| **Student name:** |  | **Graduation Date:** |  |

Pathways and CIP Codes: Energy (17.2071)

Course Description: An **application level** course which may include student research projects and/or workplace/internship experience related to the field of Energy.

Directions:The following competencies are required for full approval of this course. Check the appropriate number to indicate the level of competency reached for learner evaluation.

**RATING SCALE:**

4. Exemplary Achievement: Student possesses outstanding knowledge, skills or professional attitude.

3. Proficient Achievement:Student demonstrates good knowledge, skills or professional attitude. Requires limited supervision.

2. Limited Achievement:Student demonstrates fragmented knowledge, skills or professional attitude. Requires close supervision.

1. Inadequate Achievement:Student lacks knowledge, skills or professional attitude.

0. No Instruction/Training:Student has not received instruction or training in this area.

## Benchmark 1: Research element

### Competencies

| **#** | **DESCRIPTION** | **RATING** |
| --- | --- | --- |
| 1.1 | Work with peers and instructor to determine an energy-related topic, project, or problem for research or design. |  |
| 1.2 | Identify the stakeholders who will be impacted by a project, and consider multiple points of view in the research/design process. |  |
| 1.3 | Access and utilize industry resources in the completion of the project. |  |
| 1.4 | Research new technologies that could affect the topic/project, and/or help solve the problem. |  |
| 1.5 | Demonstrate ability to manage and set project goals and timelines. |  |
| 1.6 | Demonstrate abilities in design/planning, visual communication & problem solving in the energy industry. |  |
| 1.7 | Demonstrate an awareness of current energy industry standards. |  |
| 1.8 | Use appropriate grammar and word usage in the creation and implementation of a formal graphic presentation using current standards and technology. |  |

## Benchmark 2: Workplace behavior

### Competencies

| **#** | **DESCRIPTION** | **RATING** |
| --- | --- | --- |
| 2.1 | Employ effective communication skills and professionalism when working with peers / clients. |  |
| 2.2 | Employ customer service principles when working with consumers. |  |
| 2.3 | Evaluate and follow-up on customer service provided. |  |

## Benchmark 3: Workplace safety

### Competencies

| **#** | **DESCRIPTION** | **RATING** |
| --- | --- | --- |
| 3.1 | Employ safety skills and equipment usage in appropriate ways. |  |
| 3.2 | Be aware of MSDS (Material Safety Data Sheets) and other safety resources and employ those resources as required for the workplace. |  |
| 3.3 | Describe how workplace injuries impact both the employee and the employer |  |

I certify that the student has received training in the areas indicated.

Instructor Signature:

For more information, contact:

CTE Pathways Help Desk

(785) 296-4908

[pathwayshelpdesk@ksde.org](mailto:pathwayshelpdesk@ksde.org)



900 S.W. Jackson Street, Suite 102

Topeka, Kansas 66612-1212

[https://www.ksde.org](https://www.ksde.org/)

The Kansas State Department of Education does not discriminate on the basis of race, color, national origin, sex, disability or age in its programs and activities and provides equal access to any group officially affiliated with the Boy Scouts of America and other designated youth groups. The following person has been designated to handle inquiries regarding the nondiscrimination policies: KSDE General Counsel, Office of General Counsel, KSDE, Landon State Office Building, 900 S.W. Jackson, Suite 102, Topeka, KS 66612, (785) 296-3201.