ENGINEERING LEARNER’S EXPERIENCE
Well Logging

BACKGROUND

Well Logging
- Key in exploration geoscience & engineering
- Techniques used to obtain direct subsurface data from drilling
- Geophysical or physico-chemical records from drilled wells relating measured parameters to rock characteristic
- Employs science principles and relationships to generate useful information about geologic formations

Fit in the curriculum
- Required course offered every year
- Intended for Juniors and Seniors
- Students interested in exploration or engineering geoscience, and the extraction of natural resources

REDESIGNED COURSE

Purpose and Nature of Redesign
Learner-centered, focused on course learning outcomes to increase performance, skill, & mastery

Content Map of Course Learning Outcomes, Bloom’s Level 1 - 4

This well logging course provides learners’ with the knowledge and skills to conduct well log analysis and interpretation

STRATEGIES
- Use feedback & assessments to measure effectiveness
- Intentionally align learning activities to course outcomes
- Leverage prior knowledge & skills to motivate / maximize learning
- Emphasize “need to know” not “nice to know” content
- Use scaffolding to unpack complex content

INTENDED OUTCOMES

Summer Intensive
Improved ability to enhance student learning by engineering course design

Redesigned Course
- Align course activities with LO
- To increase performance score
- By providing assessment /feedback
- And increasing positive reinforcement
- To enable knowledge transfer

ASSESSMENTS

Formative
- Minute paper
- Concept maps
- Group activities
- Scaffolding Worksheets

Summative
- Concept maps
- Rubric based tests, exams, & simulations

To educate …

Proud
Skilled
Satisfied
Professionals

I was engaged in the Intensive activities all day, everyday during the course and enjoyed the sessions

…For me, the Summer Intensive modeled exactly what research suggest effective teaching should be. It has been one of the most enriching experiences I have received as a college instructor. I feel so confident about my future teaching…

Hendratta Ali coordinates petroleum geology at FHSU. She is also very involved in mentoring undergraduate research. Ali has been recognized as FHSU Outstanding Undergraduate Research Mentor, Outstanding Graduate Advisor, AAPG Inspirational Geoscience Educator and 2018 SEG Outstanding Educator

Hendratta Ali, Assoc. Prof., Werth College of STem (FHSU) & Visiting Scholar PE (CSM)

Summer 2018 Cohort