

HAMZA SHAHBAR

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OBJECTIVE

Chemical engineering student at KFUPM currently pursuing a concentration in process safety. Eager to gain hands-on experience in industrial operations, especially in areas related to heat transfer, mass balance, and equipment design. Motivated to apply my academic background and analytical skills in a practical setting while learning from professionals in a high-performance environment.

EDUCATION

Bachelor's Degree In Chemical Engineering

King Fahad University for petroleum and minerals (KFUPM)

AUG 2020 – present

- Continuing education courses in Process Safety.
- Earned 3rd Honor Degree in term 232, with 20 hours credits.

EXPERIENCE

Jawalah Club

Entertainment Committee Leader

JAN 2025 – Present

- Led the entertainment committee, organizing and managing events to enhance student engagement and team-building activities.
- Developed creative event concepts, ensuring alignment with club objectives and members' interests.

PROJECTS

Research: Developing Edible Packaging Materials for Marine Ecosystem Preservation from Plastic Pollution in the Red-Sea City

Course: English 214 | Institution: KFUPM – English Language Department

JAN 2024 – MAY 2024

- Investigated the diverse impacts of plastic pollution in the Red Sea City and its ecosystem.
- Proposed innovative edible packaging materials as a sustainable solution to prevent environmental degradation.
- Emphasized proactive measures to address environmental concerns before pollution occurs.

KFUPM Entrepreneurship Institute

Entrepreneurial Emerging Leaders Acceleration (EELA) Program Participant

JAN 2024 – MAY 2024

- Gained a comprehensive knowledge in startup development, including market research, business modeling, and financial planning.
- Developed effective communication strategies tailored for diverse stakeholders, including investors and partners.
- Built a foundational understanding of finance, enabling the creation of cost-effective budgets and business plans.
- Enhanced management and leadership skills through hands-on projects and case studies.

Column Distillation Design

Course: CHE 306 | Institution: KFUPM – Chemical Engineering College

AUG 2024

- Designed and simulated a distillation column using rigorous model to achieve specified purities for separating a 100 kmol/h feed stream equimolar composition of water and methanol at 25 C and 1.4 bar.
- Applied the SRK (Soave-Redlich-Kwong) equation of state for accurate property predictions and ensure energy-efficient operation.
- Determined key specifications: 6 minimum trays, 12 actual trays, and an optimal feed stage at stage 8.
- Achieved methanol recovery of 90% - 99% in the distillate.

Case Study: Process Safety Analysis of the Chevron Richmond Refinery Fire

Course: CHE 306 | Institution: KFUPM – Chemical Engineering College

AUG 2024

- Examined the catastrophic burst of a corroded pipe in the #4 Crude Unit, leading to the release of flammable hydrocarbons and a massive fire.
- Investigated the incident's impact on 19 endangered workers, emergency evacuations, and the broader community, which faced over 15,000 medical claims and significant air pollution.

SKILLS & CERTIFICATIONS

Certifications:

- Data Engineer in Python – DataCamp | August 2024
- Associated Project Management | August 2024
- Aspen HYSYS Process Simulation | March 2024
- Power BI Fundamentals – DataCamp | October 2024

Skills:

- Problem-Solving Techniques
- Logical Reasoning & Critical Thinking
- Team Collaboration & Communication
- Time Management & Organization
- Leadership

LANGUAGES

- Arabic | native
- English | Professional Proficiency

REFERENCES

Available only upon request