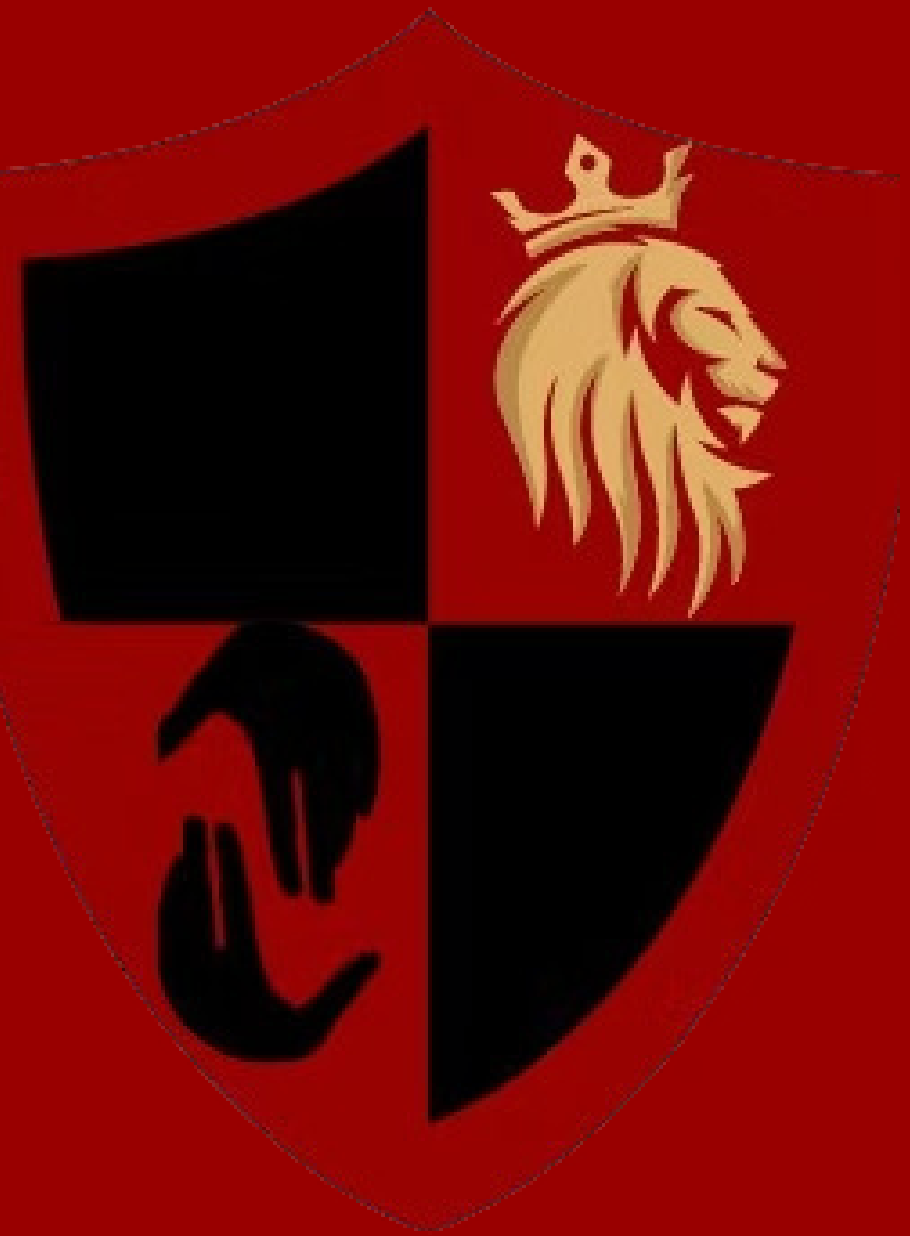

Bachelor of Environmental Engineering Faith-Based, B.Eng.

The Bachelor of Environmental Engineering Faith-Based (B.Eng) program at Ebed-Melech University is a comprehensive and innovative course of study that integrates environmental engineering principles with a strong emphasis on faith-based perspectives. This four-year program equips students with the technical skills necessary for environmental engineering excellence while fostering a deep understanding of the ethical and spiritual dimensions of their profession.

Program at a Glance

120

Credit Hours

Complete curriculum designed for comprehensive learning

100%

Online

Fully flexible distance learning experience

4-8

Week Classes

Accelerated format for faster completion

3-4

Years

Time to degree completion

Foundation Years: Building Core Competencies

The first two years establish a strong foundation in mathematics, sciences, and engineering principles while introducing students to faith-based perspectives that will guide their professional journey.

1

Semester 1

English Composition I, Calculus I, Physics I, Introduction to World Religions, and an elective course lay the groundwork for academic success.

2

Semester 2

English Composition II, Calculus II, Physics II, Introduction to Chemical Engineering, and an elective continue building essential skills.

3

Semester 3

Introduction to Computer Science, Calculus III, Modern Physics, Chemical Processes, and an elective expand technical knowledge.

4

Semester 4

Technical Writing, Differential Equations, Thermodynamics, and Introduction to Faith-Based Environmental Engineering Ethics bridge theory and practice.

Semester 1: Beginning the Journey

Core Courses

- **ENG 101 – English Composition I** (3 credits)
- **MAT 101 – Calculus I** (3 credits)
- **PHY 101 – Physics I** (3 credits)
- **REL 101 – Introduction to World Religions** (3 credits)
- **Elective Course** (3 credits)

What You'll Learn

This foundational semester introduces essential communication skills, mathematical reasoning, physical principles, and religious perspectives that form the basis of your engineering education.

Students develop critical thinking abilities while exploring how faith intersects with scientific inquiry and professional practice.

Semesters 2-4: Deepening Technical Knowledge

Semester 2

Advanced composition, Calculus II, Physics II, and Introduction to Chemical Engineering build on first-semester foundations.

Semester 3

Computer Science, Calculus III, Modern Physics, and Chemical Processes introduce computational and advanced scientific concepts.

Semester 4

Technical Writing, Differential Equations, Thermodynamics, and Faith-Based Environmental Engineering Ethics integrate communication and ethical frameworks.

Advanced Studies: Semesters 5-6

The middle years focus on specialized environmental engineering topics, integrating faith-based innovation and sustainability principles with advanced technical coursework.

1

Engineering Materials & Dynamics

Semester 5 covers Engineering Materials, Statics and Dynamics, Faith-Inspired Innovation, Project Management, and electives.

2

Fluid Mechanics & Sustainability

Semester 6 explores Fluid Mechanics, Engineering Ethics and Social Responsibility, Environmental Engineering and Sustainability, plus electives.

Faith-Inspired Innovation in Environmental Engineering

EEF 304

This unique course explores how faith-based perspectives inspire innovative solutions to environmental challenges.

Students learn to integrate spiritual values with cutting-edge engineering practices, developing approaches that honor both creation and technical excellence.

Creative Problem-Solving

Apply faith principles to develop innovative environmental solutions

Stewardship Focus

Understand environmental responsibility through spiritual lens

Ethical Leadership

Lead with integrity in environmental engineering projects

Capstone Experience: Semesters 7-8

The final year brings together all learning through advanced coursework, leadership development, and a comprehensive capstone project that demonstrates mastery of faith-based environmental engineering principles.

Advanced Topics

Semester 7: Advanced Topics in Faith-Based Environmental Engineering, Design and Innovation, Ethics in Global Contexts, plus electives.

Capstone Project

Semester 8: Leadership and Professionalism, Environmental Engineering and Society, electives, and a 6-credit Capstone Project.

Complete 8-Semester Curriculum Overview

Semester 1-2	Semester 3-4	Semester 5-6	Semester 7-8
Foundation in math, science, writing, and faith perspectives	Advanced sciences, technical communication, and engineering ethics	Specialized environmental engineering with faith-based innovation	Advanced topics, leadership, and capstone project
30 credits	30 credits	30 credits	30 credits

Each semester includes a carefully balanced mix of core engineering courses, faith-based perspectives, and elective opportunities, ensuring graduates are well-prepared for professional practice with strong ethical foundations.

For Such a Time as This

> *"And who knows but that you have come to your royal position for such a time as this?"*
>
> **Esther 4:14**

The Bachelor of Environmental Engineering Faith-Based program prepares you to answer your calling as an environmental steward, equipped with both technical excellence and spiritual wisdom to address the critical challenges of our time.