Computing & Informatics

Institution: Family Rescue International Institute

Course Description:
Foundational and advanced study in computer systems, programming, networking, and information technologies for solving modern digital problems.

Learning Outcomes:

1. Understand computer hardware and software fundamentals.

2. Develop programming and problem-solving skills.

3. Apply database and network management concepts.

4. Integrate technology solutions in practical scenarios.

Modules / Units:

- **Introduction to Computing:** Overview of computer systems, history, and fundamentals.

- **Programming Fundamentals:** Basics of coding, algorithms, and control structures.

- **Database Systems:** Design, implementation, and management of relational databases.

- **Networking Basics:** Principles of networking, protocols, and connectivity.

- **Web Development:** Building dynamic, interactive web applications.

- **Cybersecurity Essentials:** Protecting systems and data from threats.

- **Capstone Project:** A hands-on project integrating course concepts.

Assessment Methods:

- Assignments & lab exercises

- Quizzes & exams

- Final project presentation

Recommended Resources:

- Standard computer science textbooks

- Online coding platforms (Codecademy, freeCodeCamp)

- Academic journals in computing

- Lab software (virtual machines, IDEs)