Work Breakdown Structure

Campus Equipment Borrowing and Facility Reservation System

1.0 Project Planning and Requirements
- **1.1** Define project scope and objectives
- **1.2** Form project team & roles
- **1.3** Gather user requirements (students, admin)
- **1.4** Create project plan (timeline)

2.0 SYSTEM DESIGN
- **2.1** Database Schema Design
- **2.2** UI/UX wireframes & prototypes
- **2.3** Design review & approval

3.0 API Specification & Documentation
- **3.1** Define API endpoints (facility, equipment, users)
- **3.2** Data models & request/response formats
- **3.3** Authentication & security protocols
- **3.4** API documentation (Postman)

4.0 Core Development
- **4.1** Database implementation
- **4.2** User authentication & role management
- **4.3** Resource availability engine
- **4.4** Transaction logging system

5.0 ACCOUNT HOLDER FEATURES
- **5.1** User registration & login
- **5.2** User profile management
- **5.3** View available facilities & equipment
- **5.4** Track reservations & borrow history

6.0 Administrator Features
- **6.1** Facility management
- **6.2** Equipment management
- **6.3** Approvals & conflict resolution
- **6.4** Reports & analytics

7.0 Facility Reservation
- **7.1** Facility availability
- **7.2** Reservation request & approval
- **7.3** Calendar integration
- **7.4** Reservation history

8.0 Equipment Borrowing
- **8.1** Equipment catalog & inventory
- **8.2** Borrow request & approval
- **8.3** Return & overdue management

9.0 Testing & Deployment
- **9.1** Unit & integration testing
- **9.2** User Acceptance Testing (UAT)
- **9.3** Deployment setup (server, database)
- **9.4** Go-live execution

10.0 Documentation & Defense
- **10.1** Technical documentation (system, APIs, database)
- **10.2** User manuals (student, staff, admin)
- **10.3** Final defense