Curriculum Development
Centers Program

Awardee of The Office of the National Coordinator for
Health Information Technology

Component 4: Introduction to Information and Computer Science

Unit 9: Components and
Development of Large Scale
Systems

Lecture 6

Topic II: Systems Development Lifecycle (SDLC)

1. Systems Planning
2. Systems Analysis
3. Systems Design
4. Systems Implementation
5. Systems Support and Security

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5. Systems Support & Security

- Managing systems support and security:
  - User Support
  - Systems Maintenance
  - System Security
  - Physical Security
  - Backup and Recovery
  - System Obsolescence

User Support

- User training
  - Minimize productivity losses
  - Help users do their jobs faster/ better
- Help desk
  - Show how to use system resources
  - Answer questions
  - Teach
  - Contact point

Systems Maintenance

- The modification of a system to correct faults, to improve performance, or to adapt the system to a changed environment or changed requirements.
  – Maintenance Tasks
  – Maintenance Management
  – System performance management

Maintenance Tasks

- Corrective
- Adaptive
- Perfective
- Preventive

Maintenance Management

- Maintenance team
  - System Administrator
  - System Analysts
  - Programmers
- Maintenance requests
  - Users submit corrective/ adaptive requests
  - IT staff submit perfective/ preventive requests
- Establishing priorities

Maintenance Management

- Configuration management
- Maintenance releases
- Version control
- Baselines
  - Functional
  - Allocated
  - Product

System Performance Management

- Fault Management
- Performance and Measurement
  - Response time
  - Bandwidth
  - Throughput
  - Turnaround
- Capacity Planning