

Human Factors Training Course

Course Contents

Course Overview and Learning Objectives

The Need to Consider the Human in System Design, Operation, and Support

Human Performance

1. Factors that Affect Human Performance
2. Reliable Human Performance
3. Modeling the Human for Reliability Evaluation Purposes

Human Reliability Requirements and Activities

1. Evaluating the Customer Need
2. The Overall Human Function Design Process
3. Elements of a Human Engineering Design Process
4. Interfaces Between the Human Engineering Program and the Reliability and Maintainability Program

Human Engineering Analysis

1. Qualitative and Quantitative Allocation of Functions to Human-Machine Systems and Processes
2. Human Engineering Analysis Methods
3. Task Analysis
4. Operational Sequence Diagrams and Other Flow Methods
5. Workload Analysis
6. Fault Tree Analysis and Similar Techniques
7. Human Engineering Design Guidelines
8. Computer-Aided Design Tools for Human Engineering
9. Human Interface Simulators

Metrics

1. Quantitative Metrics for Human-Machine Systems and Processes
2. Quantitative Analysis Methods

Human Engineering Design Guidelines

1. Displays and Communications
2. Controls and Tools
3. Work Space Design
4. Environment
5. Time

Testing Considerations

Standard Data Sources

Special Topics

1. Information Technology-Based Processes
2. Manufacturing, Assembly, Maintenance, and Testing Processes
3. Remote Handling Equipment
4. Some Notes on Human-Computer Interfaces
5. Evaluation of Technical Manuals