



INCOSE Systems Engineering Professional (SEP) Exam Preparation Course



UMBC
TRAINING CENTERS

May 10 – 13, 2021

Live Online 9:00 AM – 5:00 PM

UMBC Training Centers has teamed up with **SE Scholar** to develop a unique approach to teaching the INCOSE SE Handbook which contextualizes the various Organizational, Project and Technical processes that are necessary to realized a “System-of-Interest.” **With the aid of a comprehensive Process Flow diagram, our Instructor will walk the students from the Project Portfolio Process to Disposal Process in a logical and sequential manner**, while covering the contents of the entire INCOSE SE Handbook. This course also has a **significant on-line portion which provides study material and numerous quizzes** as well as a sample exam. These tests are based on the structure of the INCOSE CSEP Exam, thus **providing the student with a familiarity and comfort level they’ll need to pass the Exam**. These tests are a valuable resource for the student and can be repeated as many times as the student desires.

This course is one of the best in the industry because of its comprehensive and logical approach. In the end the student will:

- ◆ Learn the framework of the 31 Processes within the INCOSE SE Handbook vs. 4.
- ◆ Have access to dozens of practice Quizzes.
- ◆ Start to appreciate the context of Systems Engineering

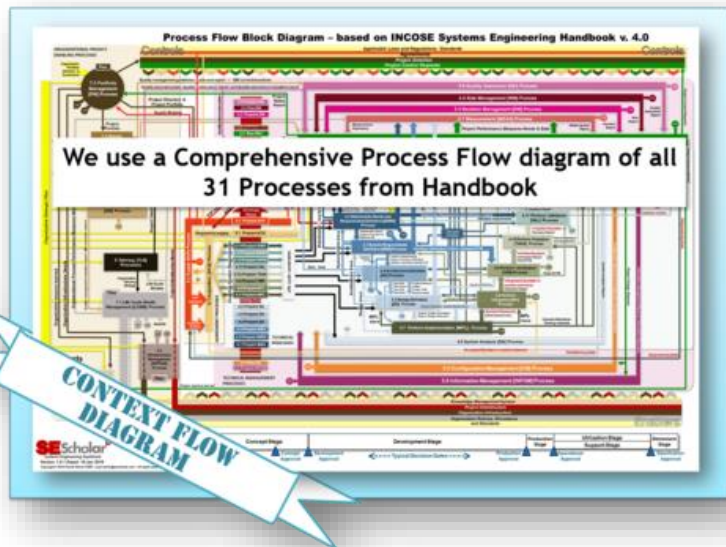
A Great Value

\$1,995.00 Per Student

INCOSE Member Discount = 15% Your Cost = \$1,695.75

To Register Contact Michael Schwartz

mschwartz@umbctraining.com | (443)460-3126



INCOSE SYSTEMS ENGINEERING PROFESSIONAL (SEP) EXAM PREPARATION CLASS OUTLINE

1. UNDERSTANDING THE INCOSE CERTIFICATION PROCESS

- What is INCOSE?
- What is the INCOSE Certification Process?
- Differences between ASEP/CSEP/ESEP?
- Detail Qualification Requirements for the CSEP
- How to fill out the CSEP Application
- Relating your experience to the 14 SE Work Areas
- Making sure your Experience Matrix matches your Position Descriptions
- Tips for interacting with potential References

2. INTRODUCTION TO SE AND THE LIFE CYCLE MODEL

- 1 Systems Engineering Handbook Scope
- 2 Systems Engineering Overview
- 3.3 Life Cycle Stages
- 3.2 Life Cycle Characteristics
- 7 Organizational Project-Enabling Processes
- 7.1 Life Cycle Model Management Process

3. APPROACHES TO SYSTEMS ENGINEERING

- 7.3 Portfolio Management Process
- 8 Tailoring process and Application of Systems Engineering
- 3.4 Life Cycle Approaches
- 3.4.1 Iteration and Recursion
- 3.4.2 Sequential Methods
- 3.4.3 Incremental and Iterative Methods
- 9.2 Model-Based Systems Engineering
- 9.4 Object-Oriented Systems Engineering Method
- 9.8 Lean Systems Engineering
- 9.9 Agile Systems Engineering
- 10.13 Value Engineering
- 3.5 What Is Best for Your Organization, Project, or Team?
- 7.5 Quality Management Process
- 7.6 Knowledge Management Process

4. PROJECT PLANNING FROM A SE POV

- 7.2 Infrastructure Management Process
- 7.4 Human Resource Management Process
- 6.1 Acquisition Process
- 6.2 Supply Process
- 5.1 Project Planning Process
- 9.7 Integrated Product and Process Development
- 5.2 Project Assessment and Control Process

5. TECHNICAL MANAGEMENT PROCESSES

- 5.7 Measurement Process
- 5.3 Decision Management Process
- 5.4 Risk Management Process
- 5.5 Configuration Management Process
- 5.6 Information Management Process
- 5.8 Quality Assurance Process

6. REQUIREMENTS

- 9.1 Modeling and Simulation
- 9.5 Prototyping
- 4.6 System Analysis Process
- 4.1 Business or Mission Analysis Process
- 4.2 Stakeholder Needs and Requirements Definition Process
- 4.3 System Requirements Definition Process
- 9.6 Interface Management

7. DESIGN CONSIDERATIONS

- 9.3 Functions-Based Systems Engineering Method
- 10 Specialty Engineering Activities
 - ♦ Affordability/Cost-Effectiveness
 - ♦ Electromagnetic Compatibility
 - ♦ Environmental Engineering Impact Analysis
 - ♦ Interoperability Analysis
 - ♦ Logistics Engineering
 - ♦ Manufacturing and Producibility Analysis
 - ♦ Mass Properties Engineering
 - ♦ Reliability, Availability, and Maintainability
 - ♦ Resilience Engineering
 - ♦ System Safety Engineering
 - ♦ System Security Engineering
 - ♦ Training Needs Analyses
 - ♦ Usability Analysis/HSI
 - ♦ Value Engineering

8: TECHNICAL PROCESSES

- 4.4 Architecture Definition Process
- 4.5 Design Definition Process
- 4.7 Implementation Process
- 4.8 Integration Process
- 4.9 Verification Process
- 4.1 Transition Process
- 4.11 Validation Process
- 4.12 Operation Process
- 4.13 Maintenance Process
- 4.14 Disposal Process

“I found the mega-process flow diagram to be really very useful as it served as a visual thread of all the context diagrams.” ~ *Former Student*