This course provides you with a global knowledge and understanding of the INCOSE Systems Engineering Handbook (SEH) V4 in order to prepare with best success conditions the INCOSE ASEP/CSEP exam. The exam itself is not included in the training and shall be planned on trainee’s initiative within a period of 6 months maximum after the training.

Prerequisites
- Master level
- INCOSE member (to apply for the ASEP exam)
- Have a copy of the SE Handbook V4 (paper copy is preferred)

Key elements
Dates: 17 - 28 May 2021
Duration: 70 hours
For whom: recent graduates, jobseekers and experienced employees
Location: ISAE-SUPAERO, Toulouse
Course fees: 5 000 € *
Language: English

Learning objectives
After completing this course, participants will be able to:
- Understand the definition and concepts of a system;
- Know the concepts of System thinking and Life cycle overview;
- Analyze technical processes ranging from requirements, to implementation, integration, verification and validation;
- Understand how systems engineering contributes to business aspects.

Practical information and registration
Natalia Perthuis - 05 61 33 80 47 – info.exed@isae-supaero.fr

* Cost including AFIS/INCOSE membership but excluding exam registration
Programme overview

Day 1
INCOSE general presentation & Certification process overview
SE Handbook V4 scope (Chap 1)
Systems Engineering Overview (Chap 2)

Day 2
Generic Life Cycle Stages (Chap 3)

Day 3
Technical Processes – Part 1 (Chap 4.1-4.6)
Business or Mission Analysis, Stakeholder Needs and Requirement Definition, Systems Requirement Definition, Architecture Definition, Design Definition, System Analysis

Day 4
Technical Processes – Part 2 (Chap 4.7-4.12)
Implementation, Integration, Verification, Transition, Validation, Operations, Maintenance, Disposal

Day 5
Technical Management Processes (Chap 5)
Project Planning, Project Assessment & Control, Decision Analysis, Risk Management, Configuration Management, Information Management, Measurements, Quality Assurance

Day 6
Agreement Process (Chap 6)
Acquisition Process, Supply Process
Organizational Project Enabling Process (Chap 7)

Day 7
Tailoring Process & Application of Systems Engineering (Chap 8)
Tailoring for Specific Product Sector or Domain Application, Application of SE for Services, Enterprises, VSME
Day 8
Cross-cutting Systems Engineering Methods (Chap 9)

Day 9
Specialty Engineering Activities (Chap 10)

Day 10
Synthesis and preparation of the ASE/CSEP Exam
Fictive ASE/CSEP exam

### Teaching methods

<table>
<thead>
<tr>
<th>Teaching methods</th>
<th>Yes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lectures / tutorial</td>
<td>X</td>
</tr>
<tr>
<td>Collaborative learning</td>
<td>X</td>
</tr>
<tr>
<td>Flipped classroom</td>
<td></td>
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<tr>
<td>Blended learning (online and face to face)</td>
<td>X</td>
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<tr>
<td>Learning by doing</td>
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<tr>
<td>Project-based</td>
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<tr>
<td>Simulation</td>
<td>X</td>
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<tr>
<td>Case study</td>
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### Assessment

30 min MCQ at the end of each day
2h30 MCQ with 120 questions (fictive exam)