



# SYSTEMS ENGINEERING FOR SPECIALIST VEHICLES

## ***Descriptions des Cours***

This course is designed to provide an understanding of a full lifecycle systems approach to the development of specialist vehicles and integration of their systems, particularly in the military context.

This course is delivered in partnership between SE-Training and OptimaSC Independent Systems Consultancy Engineers:

<http://www.optimasc.co.uk/training.html>

It uses structured training and exercises to explain how to tailor and apply Systems Engineering practices to the specific challenges encountered in this environment. The course is delivered by OptimaSC Independent Systems Consultancy Engineers and is designed as a 4.5 day course.

It will cover:

- The development of vehicles, understanding of requirements, architecture and the integration of sensors, communications, automotive and other systems.
- Integration methods and evaluation strategies.

- The assessment of electrical and electronic sub-systems for platform and information management systems.
- Vulnerabilities, trends and best practice for human-machine interface, computing and software issues.
- Human factors integration and user workload issues.
- Management of Systems Engineering processes across disparate disciplines.

## ***Objectifs***

For the individual this course will:

- Teach the application of Systems Engineering processes in a practical and pragmatic way that can be readily applied to real world problems.
- Provide tools to help manage the complexities of modern vehicle systems development.

For an organisation this course will:

- Allow organisations to implement Systems Engineering processes that are appropriate to their business needs.
- Reduce the technical risks of an organisation facing complex vehicle development.

The course will develop the principles of Systems Engineering in the context of developing and integrating complex vehicles. It focuses on the practicalities of applying Systems Engineering by using realistic case studies and real world practical examples.

On successful completion, delegates should be able to:

- Contribute to the planning of the development lifecycle, including phased test and acceptance activities.
- Understand interoperability issues for complex land platforms and understand the supportability of military systems through life in different contexts.
- Participate in stakeholder engagement and requirements engineering in support of assessing the needs for sub-systems and their integration with vehicles.
- Evaluate equipment fits in terms of technological risk, military capability, cost and crew utility.
- Critically evaluate the budget requirement for Size, Weight, Power, communication bandwidth, etc. of armoured fighting vehicles.
- Understand the integration of humans as a system and their influence on the systems performance.
- Identify suitable sensors, sensor interfaces and sensor fusion and communication techniques to improve situational awareness.
- Appreciate the need for electrical and electronic sub-systems.

## ***Pour Qui***

The course is suitable for anyone looking to pursue a career or advance in Systems

Engineering in relation to specialist vehicles.

### ***Tarifs des Cours***

Early Bird Rates: 2,700 CHF. Regular Rates: 3,000 CHF

### ***Durée***

5 jours

### ***Enseignant***