Syntell | excellence in systems lifecycle management

AN EXCELLENT WEEK AWAITS!

# SCANDINAVIAN SUMMER SCHOOL WEEK

*A UNIQUE WEEK OF INTENSE LEARNING, NETWORKING AND INSPIRATION TO PREPARE YOU FOR FUTURE CHALLENGES IN DEFINING, DESIGNING AND MANAGING SYSTEMS THROUGHOUT THEIR LIFETIME.*

## COURSES:

– DESIGN THINKING AND SYSTEMS ENGINEERING
– SYSTEMS ARCHITECTING FUNDAMENTALS
– LOGISTICS ENGINEERING AND MANAGEMENT

## 2024

## Utö, Stockholm Archipelago, August 11–16

**Syntell AB** | Box 100 22 | 100 55 Stockholm | Sweden | Tel +46(0)8 660 02 80 | info@syntell.se | **www.syntell.se**

# Welcome to the 25th edition of the Scandinavian Summer School Week

This unique course week combines theory and practice as well as hard work and social activities in an inspiring environment. Together with participants from many industrial sectors you will be taught and guided by internationally recognized lecturers.

The Scandinavian Summer School Week is an annual event that was initiated in 1999 as an innovative way of providing an intense competence development experience. The week serves two major purposes:

- to teach the principles of how to develop and manage effective systems and;
- to support networking between practitioners

The Scandinavian Summer School Week 2024 includes the following three courses:

- **Design Thinking and Systems Engineering**
- **Systems Architecting Fundamentals**
- **Logistics Engineering and Management**

### Instructional Approach

Each course is presented by internationally recognized lecturers with teaching experience from universities such as Stevens Institute of Technology and the Royal Institute of Technology as well as solid industrial experience from international organizations. All courses during the Scandinavian Summer School Week combine theory with engineering practice and lessons learned from real-world problems.

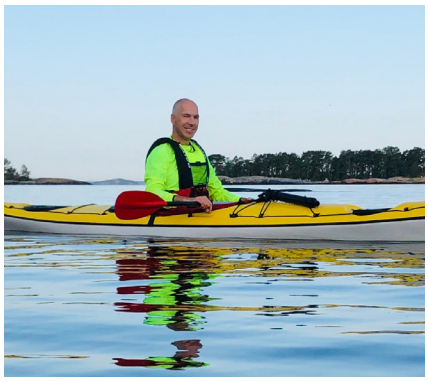
### Target Group

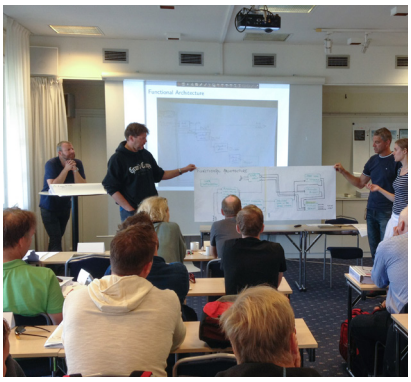
The Scandinavian Summer School Week is aimed at anybody involved in marketing, engineering, management or support of technical systems (systems comprising hardware/software/humans). It is a good opportunity to establish a shared view and platform for customers and contractors, project teams as well as for different departments within the organization.

### Previous participants

Previous participants of Syntell Summer and Winter Schools, numbering over 1000, include representation from:

ABB, Autoliv, BAE Systems Bofors, BAE Systems Hägglunds, BMW, Bombardier, ESS, Finnish Defence, FLIR, FMV, Husqvarna, Kockums, Kongsberg A&D, Leo Pharma, Mycronic, Nokia, Norwegian Defence, Novo Nordisk, Rymdbolaget, Saab Group, Scania, Siemens, SJ, Solvina, Sporveien, Tetra Pak, Trafikförvaltningen, TVO, Vattenfall and Volvo Group.





# Design Thinking and Systems Engineering

Lecturers:

Dr. Dinesh Verma
Stevens Institute of Technology, USA

Tom Strandberg, CSEP
Syntell AB

| | Sunday | Monday | Tuesday | Wednesday | Thursday | Friday |
|---|---|---|---|---|---|---|
| 08.00 | | Business Drivers | Alternative System Design Concepts | System Objectives | System Architecting | Student Case Study Review |
| 09.00 | | | | | | |
| 10.00 | | Break | | | | |
| 11.00 | | Terms and Definitions | Context diagram and Concept of Operations | Developing Requirements | Lifecycle Analysis | Student Case Study Review |
| 12.00 | | Lunch | Lunch | Lunch | Lunch | Lunch |
| 13.00 | | Case Study – Defining the Need | Development of Case Study | Development of Case Study | Guest Lecture | Course Review, Q&A Closing session |
| 14.00 | | | | | | |
| 15.00 | Intro to System Concepts and course outline | Break | | | | |
| 16.00 | | Stakeholders and their Requirements | Use Cases and Sequence Diagrams | Introduction to System Architecture | Documenting the Case Study | |
| 17.00 | | | | | | |
| 18.00 | Welcome Reception and Dinner | Dinner | Dinner | Dinner | Social Event | |
| 19.00 | | Case Study – Stakeholder Definition | Development of Case Study – System Design | Development of Case Study – Iteration w stakeholders | | |
| 20.00 | | | | | | |
| 21.00 | | | | | | |
| 22.00 | | | | | | |

To be successful in today´s and tomorrow´s marketplace requires you to define and develop or acquire innovative products and services in an increasing rapidly changing business environment. Essential skills include a customer focus while considering other stakeholders and a systems approach to the definition and engineering of the solution.

## About the course

The course discusses fundamental concepts and processes of design thinking and systems engineering, along with applicable methods and tools.

Initial focus is on need identification and problem definition, carried out in interactive sessions with the customer and other stakeholders. This is followed by requirements and design definition activities during concept and system design phases and articulated through examples and case study projects.

Emphasis is on enhancing the effectiveness of deployed systems by ensuring that the products and services meet stakeholders needs while reducing their operational and support costs. Specific topics include: Needs Analysis, Use Cases, Concept of Operation, System context, Requirements definition and traceability, Voice of the Customer, Design Concepts identification and selection, System Functional Architecture, Life Cycle and Risk Management.

The course finishes with a simulated System Requirements Review (SRR) in which the students present their case studies.

## Course goal

This course will provide you with the systemic mindset you need to identify the real customer needs and hence solving the right problem.

You will be given a systematic and pragmatic approach to define and design creative solutions that not only meet customer needs but also those of other stakeholders.

## Target group

This course is aimed at anyone involved in the marketing, procurement, engineering, management or support of technical systems (systems comprising hardware/software/humans). It is a good opportunity to establish a shared view for customers and contractors project teams as well as for different departments (e.g. marketing and engineering) within the organization.

## Previous knowledge

No formal knowledge in Systems Engineering is needed. However, a few years practical experience in the field of complex technical systems is recommended to have gained an insight to the need for thinking and acting in terms of systems. Course language is English but one lecturer is fluent in Swedish.

## Personal Development Units

This course allows you to apply for 30 PDUs according to INCOSE Systems Engineering Professional (SEP) Certification program.

# Systems Architecting Fundamentals

Lecturers:

Jonas Larsson, CSEP
Syntell AB

Peter Henriksson,
Systems Architect,
Mycronic

| | Sunday | Monday | Tuesday | Wednesday | Thursday | Friday |
|---|---|---|---|---|---|---|
| 08.00 | | Enterprise Perspective | Boundaries and Interfaces | Case Study Review | Architecture Layering | Collaborative Architecture Workshop (1) |
| 09.00 | | | | | | |
| 10.00 | | Break | | | | |
| 11.00 | | MoE, MoP, TPM... | System Perspective | Decision Maps | Product Lines | Collaborative Architecture Workshop (2) |
| 12.00 | | Lunch | Lunch | Lunch | Lunch | Lunch |
| 13.00 | | | | | | Course Review, Closing session |
| 14.00 | | Operational Perspective | Logical Perspective | Architecting the Life Cycle | Development of Case Study | |
| 15.00 | Introduction to course and Case Study | Break | | | | |
| 16.00 | | Mission Threads | From Logical to Physical | Introduction to Architecture Workshop | Preparations for Workshop | |
| 17.00 | | | | | | |
| 18.00 | Welcome Reception and Dinner | Dinner | Dinner | Dinner | Social Event | |
| 19.00 | | Development of Case Study | Video night & Development of Case Study | Development of Case Study | | |
| 20.00 | | | | | | |
| 21.00 | | | | | | |
| 22.00 | | | | | | |

In an ever changing market, how do you manage complexity and develop successful systems and products that are adaptable, resilient and sustainable? A good architecture is critical for sustained success when dealing with complex systems in a changing environment.

## About the course

This course starts with describing WHY a good architecture is critical for sustained success when dealing with complex systems in a changing environment. You will be introduced to the concepts, principles and practice of systems architecting and design as well as the necessary competencies for a system architect.

Throughout the course you will learn HOW to architect a system using systems engineering and a six-step architecting process on a case with a final presentation on the last day. During the course you will be exposed to terms such as architectural views, decision roadmap and trade-offs, architecture drivers, product lines, life cycle management and Model-based Systems Engineering (MBSE).

## Course goal

This course will introduce you to the necessary tools and concepts behind systems architecting. It will also give you the opportunity to practice your architecting skills, by developing and refining a case study throughout the week. The goal is to illustrate and emphasise the importance of creating a good systems architecture, and to reflect on what we actually mean by a "good architecture".

## Target Group

This course is aimed at anybody involved in the development or management of systems that wishes to enhance their competence and capability to develop systems that effectively meet the changing business environment. Suitable roles are: Product and Platform Managers, Systems Engineers, Product Engineers, Systems Architects, Systems Engineering Managers or Technical Project Managers.

## Previous knowledge

Some previous education in Systems Engineering or Product Development is beneficial, together with a few years practical experience in the field of complex technical systems. Course language is English but one lecturer is fluent in Swedish.

## Personal Development Units

This course allows you to apply for 30 PDUs according to INCOSE Systems Engineering Professional (SEP) Certification program.

# Logistics Engineering and Management

Lecturers:

Stuart Allison MCIPS
Syntell AB

Mike Cost
Syntell (UK) Ltd

| | Sunday | Monday | Tuesday | Wednesday | Thursday | Friday |
|---|---|---|---|---|---|---|
| 08.00 | | | | | | |
| 09.00 | | Why and what is ILS? | How do we apply ILS -Part 3 | Acquirer & Supplier relationship | ILS Mgmt, Reqmts, Tools & Methods | International trends in ILS |
| 10.00 | | Break | | | | |
| 11.00 | | How do we apply ILS-Part 1 | How do we apply ILS-Part 4 | Through Life Management | Obscolence Mgmt & Software Sp | Pres. of Case Study/Guidance conference |
| 12.00 | | Lunch | Lunch | Lunch | Lunch | Lunch |
| 13.00 | | | | | | |
| 14.00 | | How do we apply ILS -Part 2 | Development of Case Study | Development of Case Study | Dr David Moore; UK Acquisition reforms and ILS | Q+A Session |
| 15.00 | Introduction | Break | | | | Evaluation and closure |
| 16.00 | A holistic view on logistics engineering | Development of Case Study | Maintenance & LSA | Contracting & planning for ILS | Development of Case Study | |
| 17.00 | | | | | | |
| 18.00 | Welcome Reception and Dinner | Dinner | Dinner | Dinner | Social Event | |
| 19.00 | | Development of Case Study | Development of Case Study | Development of Case Study | | |
| 20.00 | | | | | | |
| 21.00 | | | | | | |
| 22.00 | | | | | | |

This course gives you insight into the through life management of systems. The course covers methods, tools and knowledge about how supportability is addressed, analyzed and measured as a part of the Systems Engineering process.

## About the course

The course Logistics Engineering and Management provides insight into the through life management of systems from inception to retirement. It covers Logistics Engineering methods and tools and how supportability is addressed, analyzed and measured as a part of the Systems Engineering process. The management methodology covers aspects such as tailoring, managing, contracting, planning and methods.

The course focuses on the objectives of Integrated Logistics Support (ILS) and in particular the influence and optimization of system design from a support perspective. It also includes the relationships with other project disciplines and an insight into factors/issues that increasingly impact modern day procurements, such as the use of Commercial Off The Shelf (COTS) technology, Obsolescence and Software Support.

International standards and initiatives such as the ASD series and PLCS initiatives are discussed and evaluated. The relationship between acquirer and supplier is a central theme throughout the course. The course ends with a simulated ILS Guidance Conference.

## Course goal

The aim of the course is to give a fundamental overview of logistics management and engineering in an acquisition management context with particular emphasis on the life-cycle / through life approach to Support Solution Development and implementation.

## Target group

Anyone involved in acquisition projects and programmes, both from a supplier or acquirer perspective, who require an overview of Support Solution Development in a through life context. Particularly those involved in individual ILS/ Support disciplines looking to take on a management role or requiring a better understanding of their role within the overall through life support solution environment.

## Previous knowledge

A basic knowledge of system design and support issues within your own organization. Course language is English.

## Personal Development Units

This course allows you to apply for 30 PDUs according to INCOSE Systems Engineering Professional (SEP) Certification program.

# Important information

Register for the Scandinavian Summer School Week at **www.syntell.se.**
Register by June 1, 2024 and get an early bird discount of 10% on the course fee!
Last day for registration is July 1, 2024. Welcome!

- **Venue**

  Utö is located about 90 minutes southeast of Stockholm. The surroundings offer a relaxing atmosphere and scenery. For those more active there are plenty of sporting opportunities. Participants share a cottage close to the conference area and restaurant. More information will be sent to you upon registration.

- **Time**

  The courses starts at 15:00 on Sunday, 11 August, 2024 and ends at 15:00 on Friday, August 16, 2024.

- **Transportation**

  A chartered bus leaves from Stockholm City on Sunday, August 11, which takes us to the boat to Utö. More information upon registration.

- **Price**

  The course fee is SEK 33 250, which covers attendance, a full set of course materials and a course certificate. In addition, an accomodation fee of SEK 11 500 will apply, including lodging and full board (breakfast, lunch and dinner) as of dinner Sunday, through lunch Friday. Payment is due 10 days after invoice. All prices exclude VAT.

- **Early Bird discount**

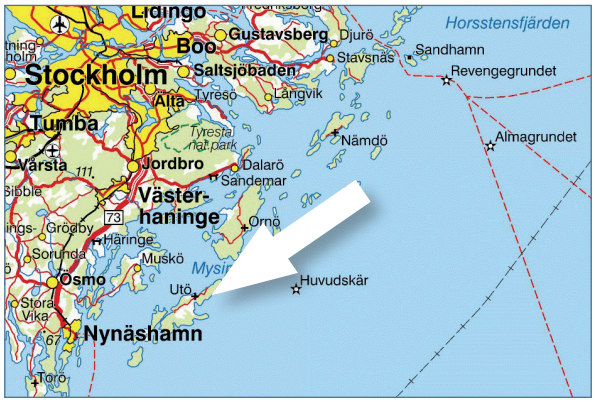
  Register by June 1, 2024 and you get an early bird discount of 10% on the course fee!

- **Registration**

  Register for the Scandinavian Summer School Week at www.syntell.se. Last day for registration is July 1, 2024.

- **More information**

  For more information, please contact us at tel +46 (0) 8 660 02 80 or training@syntell.se




*Utö is a stunning island in the Stockholm Archipelago. It offers a relaxing and inspiring surrounding for the Summer School courses. The ferry from the mainland takes around 40 minutes.*

**Conditions**

Last day for registration is July 1, 2024. The registration can be transferred to another person within the company. However, if participants must cancel prior to June 1, no cancellation fee will apply. Thereafter but before July 1, half the course fee will apply. Thereafter full fee will be charged. We reserve the right to cancel courses due to too few participants or events beyond our control. We also reserve the right to increase the price due to circumstances beyond our control. Read more about the conditions on our homepage, www.syntell.se.

**Customer satisfaction guarantee**

If you are not satisfied with the course you participate in, after agreement, we offer you participation in a similar course without any further cost. The guarantee is limited to those who fall into the course target group and have the required previous knowledge as indicated in the course description. To ensure that you get to the right course, we ask you to study the course description, target group and previous knowledge requirements carefully. Please contact us if you have questions about which course to choose. We will be happy to help you!

# Manager Discount

Special offer for all managers - sign up four employees to the Scandinavian Summer School Week and you as a manager can attend one of the courses at no cost!

## Develop your business

We provide an opportunity for managers to develop closer relationships to your personnel and the ability to develop your business! It is also an excellent opportunity to create a common language and a platform for new and ongoing projects.

Sign up four employees to the Scandinavian Summer School Week and you as a manager can attend one of the courses at no cost. You as a manager pay only for room and board.

## Benefits

• deeper understanding of the students' development and how your organisation can benefit from the new skills and motivation

• the possibility to build internal relationships in an inspiring environment

• deeper understanding of your business needs for competence

• development of your own skills on any of the Summer School Courses

• ability to influence the future direction and contents of Syntell's training

In addition to attending the course you are invited into a **special programme** with Syntell that will help you develop a sustainable organisational capability in Systems Engineering, Systems Architecting and Logistics Engineering.

### Requirements

• You are employed by the same company as the participating employees.

• You have a formal leadership of the employees (at any stage).

• You must attend one of the courses along with any of your employees.

It is a one-time registration, this offering can only be used on the formal registration of four employees. This offer cannot be combined with other offers such as our "early bird" discount. Each participant pays the full price for their Summer School Location and your investment for four employees will be 33 250 SEK per person plus room and board for 11 500 SEK per person. The manager pays for room and board (11 500 SEK) but not the course fee (33 250 SEK). All prices exclude VAT.

For more information about the discount and prices, please call us at tel +46 (0) 8 660 02 80 or e-mail training@syntell.se

Learn more about this year's Sandinavian Summer School Week at www.syntell.se

## Register at:
## www.syntell.se or email us at training@syntell.se

# About Syntell

We view your product as a system that is embedded in its environment. We see a system's whole lifecycle, from its conception through development, operation and sustainment to its retirement.

## We support you in every stage of your capability development

**We educate.** We provide you the highest standards in our open and tailored training courses and complete competence development programs.

**We enable.** We help you develop lifecycle processes, methods and infrastructure for your organization. Our experienced consultants apply proven global best practice for developing your capabilities.

**We execute.** We assist you in bringing necessary changes into practice. We consult and coach your project teams in the new ways of working in your environment and specific challenges.

## Our resources

Established since 1994, and with headquarters in Stockholm, Syntell is now operating worldwide with our clients.

We are a mid-sized consultancy firm with highly qualified and experienced staff, exceeding 12 MEUR in revenues while being AAA credit rated. This makes us a long-term and reliable supplier, partner and employer.

We complement our competences and capacity from our Syntell & Partners network, bringing together more than 50 organizations with a total of over 1500 individuals to meet your demands.

## Systems & their lifecycles – our passion & approach

We see your product as a system that is embedded in its environment. Also, we see a system´s whole lifecycle, from its conception through development and operation to its retirement. The different stages require both generic and specific capabilities to optimize the system´s performance and availabilty. For this, we can help you build and improve your capability in:

- Acquisition & Bid Management
- Business Development
- Change Management
- Configuration Management
- Enterprise Architecture
- Information & Data Management
- Integrated Logistic Support
- Model-Based Systems Engineering (MBSE)
- Process Development
- Project & Program Management
- Specifications & Requirements Management
- Supply Chain Management
- Support Solution Management & Design
- Systems Engineering
- Systems Lifecycle Management
- Through-life Costing
- Verification & Validation

Syntell | excellence in systems lifecycle management

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