

Scandinavian Academy
Training Center

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Riyadh - Al Khaleej District - Sheikh Abdul Aziz Bin Abdul Rahman Bin Bishr Street - 13223 - Office No. 5 | P.O.BOX : 13224

Course: Sustainability, Energy and Change

Code	City	hotel	Start	End	price	Language - Hours
EE-501SA	Dammam	Hotel Meeting Room	2027-09-05	2027-09-09	12950 SR	En - 25

Why Choose this Course?

This course provides insight into how engineering might change and how engineers can think differently about sustainability within their organisations, and about the challenges posed by ‘unsustainability’. It will enable participants to identify organisational risks and engineering changes required to increase organisational resilience, and to build prosperity, stability and security.

Future presents challenges and opportunities for engineers interested in sustainability and in achieving the capacity for long term continuity. Energy systems will look very different due to the impacts of constrained resources on nearly all aspects of life. Climate change also forces a consideration of different approaches to engineered systems.

This course will feature:

- Historical context of Sustainability, Unsustainability, and Energy systems
- Key challenges, risks and future scenarios for participants own organisations
- Fundamentals of the “Transition Engineering” approach
- Engineering tools for Transition Engineering
- Opportunities presented by sustainability for your own organisation

What are the Goals?

By the end of this course, participants will be able to:

- Articulate and evaluate key sustainability challenges to their own organisation

- Apply the Transition Engineering process to organisations or activities
- Identify business risks of unsustainable activities and external trends
- Evaluate the costs and benefits of transition products and services
- Use strategic analysis to develop business opportunities

Who is this Course for?

This course is suitable to a wide range of technical professionals but will greatly benefit:

- Those who are involved at any level in functions of engineering, quality or environmental management, or in any energy-dependent functions of the organisation
- Engineering and Technical Personnel involved in energy management, product development, logistics, procurement, transportation and energy efficiency.

How will this be Presented?

This course uses a variety of proven learning techniques to ensure maximum understanding, comprehension and retention of the information presented. This includes a course manual, suggested reading before and after the course, tutor presentations, individual and group exercises, video, group discussion and homework, and workshop of guided problem-solving for the participant's own organisations

The course will be highly interactive and will challenge delegates to think differently about sustainability and to change their frame of reference to transition. The tutor will facilitate and guide delegates to apply the learning, and their understanding of their own organisations, to synthesize solutions to old and new problems.

The Course Content

Day One : Introduction and historical background of Sustainability and Unsustainability

- Sustainability; the capacity for continuity into the long term future
- Safe operating spaces and “unsustainability”
- The importance of energy in human systems
- Historical background to current global challenges
- Historical responses to un-sustainability
- Overview of global problems of unsustainability

Day Two : Future Scenarios and Introduction to Transition Engineering

- EX The unsustainability challenges facing my organisation.
- Examples and use of future scenarios
- The challenge of energy return on energy invested (EROI)
- The problem of exponential growth
- The relative usefulness of existing future scenarios for my organisation
- Introduction to the Transition Engineering approach

Day Three : Engineering, Change, and thinking differently

- The role and responsibility of engineers in the change process
- Path break concepts; envisioning a sustainable future
- Sustainable models for economic activity and capital
- Achieving resilience to external change
- Examples of organisations that have made path-break changes for sustainability
- Back-casting – working out how to get to where you want to be

Day Four : Making it happen - planning a program of change

- System thinking for change towards sustainability

- The survival spectrum
- Sustainability Principles - The Natural Step
- Value Analysis
- Creating a vision of future success
- Trigger Events – external and internal events that help avoid undesirable inertia

Day Five : Tools for analysis and Action Planning, Assessment

- Core and non-core activities and how to treat them
- From “More newer faster bigger” to “better”
- Stakeholder analysis and engagement in change
- Strategic analysis of unsustainability risks
- Energy auditing – using the ISO 50001 model to assess vulnerability
- Assessment; multiple choice test

The Scandinavian Academy for Training Center adopts the latest scientific and professional methodologies in training and human resource development, aiming to enhance the efficiency of individuals and organizations. Training programs are delivered through a comprehensive approach that includes:

- Theoretical lectures supported by PowerPoint presentations and visual materials (videos and short films).
- Scientific evaluation of participants before and after the program to measure progress and knowledge acquisition.
- Brainstorming sessions and practical role-playing to simulate real-life scenarios.
- Case studies tailored to align with the training content and participants work nature.
- Assessment tests conducted at the end of the program to evaluate the achievement of training objectives.

Each participant receives the training material (both theoretical and practical) in printed form and saved on a CD or flash drive. Detailed reports, including attendance records, final results, and overall program evaluations, are also provided.

Training materials are prepared professionally by a team of experts and specialists in various fields. At the end of the program, participants are awarded a professional attendance certificate, signed and accredited by the Scandinavian Academy for Training Center.

Program Timings: 9:00 AM to 2:00 PM

The program includes:

- A daily buffet provided during the sessions to ensure participants comfort.
- A closing ceremony on the final day to distribute certificates and celebrate participants achievements.
- **Note: All prices are exclusive of 15% Value Added Tax (VAT).**

Our Success Partners

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