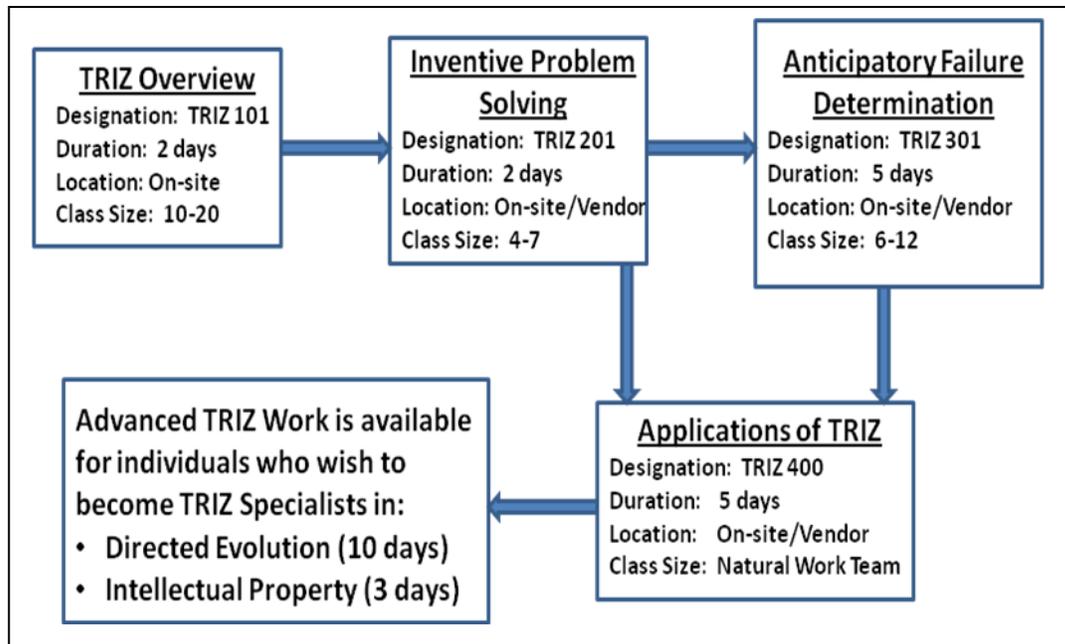


TRIZ Curriculum Strategy



Learn more about the TRIZ courses:

[TRIZ Overview \(TRIZ 101\)](#)

[Inventive Problem Solving \(TRIZ 201\)](#)

[Inventive Problem Solving \(alternative\) \(TRIZ 201\)](#)

[Anticipatory Failure Determination \(TRIZ 301\)](#)

[Applications of TRIZ \(TRIZ 400\)](#)

[Advance TRIZ Work](#)

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TRIZ Curriculum Strategy

TRIZ Overview

Designation: TRIZ 101

Duration: 2 days

Location: On-site

Class Size: 10-20

Software: Ideation Brainstorming

Cost: \$600/student

[Contact Ideation to Sign up](#)

Purpose:

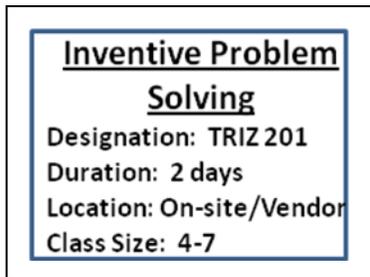
- ❖ Enable attendees to apply basic TRIZ principles and tools to their own projects
- ❖ Provide an overview and understanding of TRIZ so participants can design a long-term training program that is most appropriate for their interest and work
- ❖ Identify potential students who are interested in more in-depth TRIZ work

Benefits:

- ❖ Understanding the linkages and relationship of TRIZ to Six Sigma, Design for Six Sigma (DFSS), and DFSS tools such as QFD, Six Sigma, and Reliability
- ❖ A “big picture” overview of what TRIZ is, how TRIZ developed over time, the current applications of TRIZ, and where cutting-edge research is being conducted today
- ❖ Emphasis on the thought process, paradigms and benefits of essential TRIZ tools with practical exercises that facilitate learning
- ❖ The ability to identify certain constructs in complex systems that are critical for innovation and problem solving with the application of three fundamental approaches for system change that utilize guided brainstorming around organized systems of operators
- ❖ An overview of available TRIZ knowledge with an explanation of how TRIZ (for technical or non-technical applications) is used for: problem solving, finding root causes of problems, preventing problems, establishing strategy, intellectual property development and protection, and directing the evolution of systems
- ❖ A solid foundation for more advanced training in Innovative Problem Solving

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TRIZ Curriculum Strategy



Software: Innovation WorkBench® or Knowledge Wizard®

Cost: \$1,200/student

[Contact Ideation to Sign up](#)

Purpose:

- ❖ Provides participants with software and sufficient knowledge/skills to successfully complete problem-solving TRIZ projects.
- ❖ Promotes the integration of TRIZ with other quality tools and methods to take problem solving and process improvement to a higher level of efficiency and effectiveness.
- ❖ The class focus is on problem formulation, the identification of resources, and the use of TRIZ software to generate solutions for either technical or non-technical problems.

Benefits:

- ❖ Introduction to the Innovation Situation Questionnaire (ISQ)®, a comprehensive look at the problem from different system perspectives
- ❖ Working proficiency in system cause-and-effect mapping and modeling, and problem formulation
- ❖ Generate out-of-box ideas using TRIZ Systems of Operators that are selected to best work with the system model
- ❖ Integrating ideas to form concepts, then prioritizing and improving these concepts, readying them for implementation
- ❖ Applying features of Anticipatory Failure Determination and Directed Evolution to improved the solution concepts
- ❖ Methodology for addressing secondary problems to solution implementation
- ❖ A solid foundation for more advanced work in Anticipatory Failure Determination

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TRIZ Curriculum Strategy

<p><u>Inventive Problem Solving</u> Designation: TRIZ 201 Duration: 2 days Location: On-site/Vendor Class Size: 10-20</p>
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Alternative: **Software:** Innovation WorkBench® or Knowledge Wizard®
Cost: \$600/student

[Contact Ideation to Sign up](#)

Purpose:

- ❖ Provides participants with software and sufficient knowledge/skills to successfully complete problem-solving TRIZ projects.
- ❖ Promotes the integration of TRIZ with other quality tools and methods to take problem solving and process improvement to a higher level of efficiency and effectiveness.
- ❖ The class focus is on problem formulation, the identification of resources, and the use of TRIZ software to generate solutions for either technical or non-technical problems.

Benefits:

- ❖ Introduction to the Innovation Situation Questionnaire (ISQ)®, a comprehensive look at the problem from different system perspectives
- ❖ Working proficiency in system cause-and-effect mapping and modeling, and problem formulation
- ❖ Generate out-of-box ideas using TRIZ Systems of Operators that are selected to best work with the system model
- ❖ Integrating ideas to form concepts, then prioritizing and improving these concepts, readying them for implementation
- ❖ Applying features of Anticipatory Failure Determination and Directed Evolution to improved the solution concepts
- ❖ Methodology for addressing secondary problems to solution implementation
- ❖ A solid foundation for more advanced work in Anticipatory Failure Determination

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TRIZ Curriculum Strategy

<p><u>Anticipatory Failure</u> <u>Determination</u> Designation: TRIZ 301 Duration: 5 days Location: On-site/Vendor Class Size: 6-12</p>
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Software: Ideation Failure Analysis or
Failure Prediction

Cost: \$1,200/student

[Contact Ideation to Sign up](#)

Purpose:

- ❖ Introduce Anticipatory Failure Determination - the unique Innovation-based methodology for addressing negative issues (failures, drawbacks, side effects and such).
- ❖ Learn how to: predict and preemptively address potential dangerous or harmful events that might be associated with a given system in the future using the Ideation Failure Prediction process and software, generate failure hypotheses and scenarios, assess risks, and use TRIZ to find ways to change the system to prevent these possible failures from occurring.
- ❖ Reveal hidden or unclear failure mechanisms and successfully eliminate them.

Benefits:

- ❖ Use of the Failure Prediction Questionnaire (FPQ) to examine system functions, structure, and environment, as well as key drawbacks and side effects.
- ❖ Learn failure prediction modeling to: build a system diagram, develop failure hypotheses and scenarios, and to verify the hypothesis
- ❖ Failure prevention methodology which involves: creation of a failure diagram, concept development, and evaluation of the results.
- ❖ Understanding of the Failure Prediction Analysis Questionnaire (FAQ)
- ❖ Failure Analysis Modeling which includes: building the failure diagram, generation of failure hypotheses, and failure hypothesis verification
- ❖ Failure elimination methodology which involves creation of a diagram for the verified failure mechanism; concept development and the evaluation of the results.

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TRIZ Curriculum Strategy

Applications of TRIZ

Designation: TRIZ 400

Duration: 5 days

Location: On-site/Vendor

Class Size: Natural Work Team

Software: Any from the previous classes

Cost: \$1,750/student

Based on 4-7 participants

[Contact Ideation to Sign up](#)

Purpose:

- ❖ Practical applications of TRIZ where students are mentored in applying TRIZ to known team problems with engineering tools (FMEA, QFD, FRB,..)
- ❖ An unsolved student selected issue is used as the basis of the training

Logistics:

- ❖ Team will be able to take on a very large complex problem and see it through detailed problem formulation using all of the TRIZ tools learned in previous classes
- ❖ Well known engineering tools will be recommend for use by the instructors to aid in obtaining problem solution
- ❖ Instructor will follow up with regular team Telephone Conferences (Telecon) until the problem comes to fruition

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TRIZ Curriculum Strategy

Advanced TRIZ Work is available for individuals who wish to become TRIZ Specialists in:

- Directed Evolution (10 days)
- Intellectual Property (3 days)

[Contact Ideation to Sign up](#)

Purpose:

- ❖ To develop internal TRIZ expertise at Eglin by turning interested students into TRIZ specialists
- ❖ Detailed study of how systems evolve over time in super-systems, systems, and sub-systems
- ❖ Predicting logical developments of any system or sub-system using laws and lines of system evolution
- ❖ Study of the strengths and weaknesses of inventions (patented or to be patented)

Logistics:

- ❖ Individuals will work with TRIZ Masters from Ideation International
- ❖ The instruction will involve specialized software and project mentoring from TRIZ Masters
- ❖ The details will be worked out on a student-to-student basis

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