



# Innovation Engineering®

# FUNDAMENTALS

with Blue Belt  
Certification

---

## SYLLABUS



**Ohio**

**TechCred** 

*Credential Approved*

**Ohio Companies!**

*This program qualifies for  
reimbursement from the Ohio  
TechCred program.*

*To get approved you must  
apply by **August 31, 2020.***

# HOW

**Innovation is the business triple threat. It can help your company thrive. It helps your career soar. It creates better solutions to solve the world's problems.**

**But not everyone knows how to do it.**

**Learn the innovation life skills that will help you to transform your career, company, & community.**

**What & How You'll Learn.** In this course and certification you'll learn the fundamentals of innovation, but MORE IMPORTANTLY, you'll work with a coach to apply your new skills immediately to solve your real-world challenges. AND you can collaborate with an Innovation Engineering cohort to share experiences and learning.

**This is NOT Your Typical Course.** Most innovation courses are taught by case study, where you sit on the sidelines and guess what went wrong/right for X business in Y situation. We believe that the best learning comes first-hand... from you getting your hands dirty... from you trying things... and from you working on your own challenges. This not only helps you learn, it ensures you get value out of the course immediately.

### **At the End of This Course You'll be Able to:**

#### ***Invent More Ideas.***

Learn how to create 8X more big ideas than traditional brainstorming.

#### ***Ship Ideas Faster.***

Learn how to deliver new solutions and ideas 6X faster using a new work process for development.

#### ***Persuade Others.***

Learn how to increase the persuasion power of your ideas by up to 5X.

#### ***Jump Start Your Work.***

Learn how to Jump Start your thinking and projects using new innovation skills and tools for estimation, collaboration, and prototyping on your own challenges.

## SKILLS COVERED

### **Create Fundamentals**

- Meaningful Uniqueness
  - *How to Know an Innovation When You See One*
  - *Types of Innovations & How to Communicate Them*
- Stimulus & Diversity
  - *The Power of Stimulus & Diversity*
  - *Osborn Brainstorming & Mind Mapping*
- Exploring Stimulus
  - *Research to Better Innovate*
  - *How to Turn Research into Ideas*
- Create Session Fundamentals
  - *Reliable Ideation Tools*
  - *Running Your First Ideation Session*

### **Communicate Fundamentals**

- Strategy Activation
  - *What is an Innovation Strategy and Why Does it Matter?*
  - *The Parts of an Innovation Strategy*
  - *How to Create an Innovation Strategy*
- Concept Writing
  - *How to Communicate Your Idea and Why It Matters*
  - *The Core of a Concept: Problem, Promise, Proof*
  - *Key Parts of a Concept that Accelerate Persuasion*
  - *A System to Reliably Communicate Your Ideas*
- Concept Improvement
  - *Improving Concept Clarity & Focus*
  - *Concept Name & Headline*
  - *Quick Tips for Effectively Communicating Your Idea*
- Estimating Value
  - *Why Estimating Math for Your Idea Matters*
  - *How to Estimate Any Number for Your Idea*

### **Commercialize Fundamentals**

- Plan, Do, Study, Act (PDSA) Mindset & Steps
  - *Problem Solving for Innovations*
  - *PDSA Step by Step*
- PDSA Best Practices
  - *Practical Tactics for Innovation Problem Solving*
  - *How to Lead an Innovation Project*
- PDSA Prototypes
  - *Why Prototype Your Ideas*
  - *Concept Prototypes for Early Customer Feedback*
  - *Functional Prototypes for Proof of Concept*
- PDSA Rapid Research
  - *What does Customer Research Look Like for Innovation*
  - *The Principles behind Customer Research in Innovation*

### **System Driven Leadership**

- Systems Overview
  - *Appreciation for a System*
  - *Knowledge about Variation*
  - *Psychology*
  - *Theory of Knowledge (PDSA)*

# SYNCHRONOUS & ASYNCHRONOUS FORMATS

The Innovation Engineering Fundamentals Course with Blue Belt Certification can be offered in a cohort format or as an independent study course.

In the independent study (asynchronous) format, learners can work on their own through the online course with an instructor to grade and provide feedback on their work through the course website, [JumpStartYourBrain.com](http://JumpStartYourBrain.com).

In the private cohort (synchronous) format, learners also work on their own through the online course with an instructor to grade and provide feedback on their work through the course website, [JumpStartYourBrain.com](http://JumpStartYourBrain.com). But this is also supplemented with virtual meetups. The meetups are flexible and can be structured in a number of ways: doing demonstrations, Q&A, facilitated discussion, get insights from their classmates and instructor, etc. Meetups can be done in person or in a video conference. **PRIVATE COHORTS can also be arranged so an entire team can work collectively against the same business challenge.**

## How the Course Works

Learners get started in the course by completing the *Welcome to Innovation Engineering* introductory lesson, where they will learn how to navigate the course page and submit assignments. The materials and work are as follows:

- Video Micro-Lessons for each sub-skill listed in the prior section. From our 35+ years of experience innovating for some of the world's biggest organizations, we've found these to be the fundamental core innovation skills every person should have. Videos last on average about 7 minutes and are followed by up to three multiple-choice quiz questions, which learners must complete successfully as the first step of the *Cycles to Mastery* process before moving on to the Lab Exercises.
- Lab Exercises where learners will apply what they learned in the videos to case studies to bring the theory to life. They'll complete and submit their work and receive grading and expert coaching from their instructor. When learners are applying these skills for the first time, they sometimes fail. (A good lesson for all would-be innovators!) Which is why our instructors are there to give fast feedback, ideas, insights, and advice.
- Applications where learners will apply their learning to a real-world challenge. When it comes to learning and innovation, it all happens when you take action. Which is why we've created a collection of certification assignments that help learners connect the dots between real-world challenges and their new innovation skills. Again, instructors provide one-on-one grading and coaching as learners submit, receive feedback, adjust, and resubmit assignments until all are approved.
- Reflection to step back and personally reflect on what they have learned during this course. We ask that they submit a "significant" reflection, meaning that their writing needs to communicate a deeper level of thought, insight, and analysis than just restating what they did. This helps ensure they will continue to apply what they've learned in their work.
- Certification is achieved when all of their work is approved 100% within the course duration. No "certification" test is needed. That's what we mean by *Cycles to Mastery*. Innovation Engineering instructors will ensure that students have mastered the fundamental skills of Innovation Engineering.

**Tools.** Throughout their course experience, learners will get to leverage our JumpStartYourBrain cloud-based learning portal with bespoke innovation tools they will use during their coursework.

# PEDIGREE

1986

Eureka! Ranch, originator of Jump Start Your Brain, was founded more than 35 years ago by Doug Hall.

Doug was at P&G and got a record number of innovations shipped in a short period of time with a tiny staff and budget. (9 products in 12 months with a team of 3). He did this by using a systems approach because of his knowledge of the work of Dr. W. Edwards Deming, the inspiration for Lean, Total Quality and Six Sigma.



Doug left and founded the Eureka! Ranch and started helping large companies create big, disruptive ideas, which it continues to do today.

2006

By the early 2000s, it became clear that some companies did not have the systems in place to commercialize the disruptive ideas the Eureka! Ranch created. They would either compromise the ideas (to pass Stage-Gate milestones) or even kill them due to fear of change.

That experience inspired a sabbatical at the University of Maine and the creation of a new field of study, *Innovation Engineering*. It includes 48 skills or competencies for creating, communicating, and commercializing meaningfully unique ideas and system driven leadership skills that help innovation leaders implement the system company-wide. Basically, we're teaching people to create disruptive ideas like we do (not guru, it's a system), but we're going beyond that. We're teaching them what to do next - all the way to market/implementation.



We found that the preacher teacher approach (lecture then test) did not work, and results varied professor to professor. That's when we developed the patent-pending *Cycles to Mastery*® teaching method. There are up to 4 sub-skills for each skill with micro-lessons for each - a video and quiz. This replaces lecture. The next cycle is a Lab exercise on a case study. In our certification programs, these are submitted to a human grader who provides feedback. Students adjust and submit till approved. Then they apply the skill to a real world challenge. Again submit, grade, approve. Then they reflect on what they learn. This is done for each skill, and the student can't be certified until all their work is approved 100%. No test needed. That's what we mean by Cycles to Mastery.

2020



The way we take this to companies as professional development is *Jump Start Your Brain* (JSYB). We're making it easier for everyone across the company from the front lines to CEO to learn and apply innovation skills. We have 100s of micro-lessons, tools, badge courses, and certifications that can be customized and plugged into your LMS, or you can link to our platform.

The name comes from Doug's *Jump Start Your Business Brain* book, which was named to the list of the 100 best business books of all time. Doug's new book, *Driving Eureka!*, covers the 48 skills of Innovation Engineering and how to lead a culture of innovation.



To Learn more visit <https://eurekaranch.com/fundamentals-course/> or contact:

Lydia Carson

VP of Innovation Engineering Systems, Eureka! Ranch

t: +1 513.509.6405

Lydia@eurekaranch.com