

Reliability Engineering Excellence

The Reliability Engineer (RE) is the business advisor to facility maintenance and production. In this role, the RE mitigates the risks associated with managing assets by encouraging interdepartmental partnerships focused on the goal of reliable production. This strategic position is responsible for evaluating and predicting performance to achieve the greatest asset utilization at the lowest total cost of ownership. The RE sees all aspects of proper plant function, puts equipment first, and makes decisions based on how machines function and their impact on production. Just as a business advisor must balance policy and diplomacy, the RE must be dedicated to preserving asset reliability and managing risk.

In this 3-day course, you will learn what it means to be a Reliability Engineer, how to build and sustain a strategic Reliability Engineering program, and how to gain support from other departments to achieve your facility's reliability goals.

Learn How To

Examine the Reliability Engineer role

- Review reliability-based asset management philosophy and terminology
- Describe the role and responsibilities of a Reliability Engineer
- Explain how change management strategies and leadership skills form interdepartmental partnerships and aid program success

Define the essential components of a successful reliability program

- Physical asset management
- Reliability metrics

Investigate reliability tools and problem-solving methods

- Practice different problem-solving techniques
- Employ reliability economics, statistics and probabilities for decision making
- Use different reliability models to analyze data for reliability
- Discuss Failure Reporting, Analysis and Corrective Action System (FRACAS)
- Recognize the fundamentals of risk assessment and risk management

Discuss ways to optimize your reliability program

- Cite elements of designing for reliability
- Discuss PM optimization
- Discuss 5 PdM technologies and their application

Who Should Attend

Reliability Engineering Excellence is for those involved in improving asset/capacity reliability and predictive maintenance programs. Anyone responsible for decreasing repetitive failures, including Reliability Engineers, Maintenance Managers, Reliability Technicians, Plant Managers, Operations Managers, Production Managers and Reliability personnel.



Reliability Engineering Excellence

Life Cycle Institute

Be prepared to be an active learner. When you invest in training with the Life Cycle Institute you will gain knowledge and learn skills that you will be able to apply immediately. Our courses are designed to teach by doing. Your training with the Life Cycle Institute is different because we offer:

- Facilitators who practice what they teach and teach what they practice
- Course content that is constantly updated with the latest proven tools and methods
- Adult learning methods that minimize lecture and emphasize learning by doing
- Classrooms that are specifically designed to facilitate learning

Scheduling & Pricing

October 5-7 (Charleston, SC)

Each course includes a comprehensive active learning manual, morning and afternoon refreshments, lunch, and the use of a fully equipped e-business center. Class hours are 8:00am to 4:00pm Tuesday through Thursday. All students completing a class at the Life Cycle Institute will receive a certificate of completion awarding CEU's.

Cost: \$2,495

CEU's: 2.1

Locations:

- Life Cycle Institute, 4360 Corporate Road, Charleston, SC 29405-7445

Registration: 800-556-9589 • education@LCE.com • www.LCE.com

Private Classes

Your training needs are unique. Unique needs may require customized, on-site training. Learn from practicing reliability professionals – on your site – at a time convenient for you – tailored for your environment. For more information please contact education at 800-556-9589 or education@LCE.com.

Reliability Engineering Excellence

Course Facilitators



Carl March, CRE, CMRP

Carl has a wealth of experience in the areas of Maintenance, Reliability Engineering, Systems Modeling and Design. Carl holds an undergraduate degree in Mechanical Engineering and a graduate degree in Automotive Systems Engineering. He is a published author of technical papers written for the ASME International Mechanical Engineering Congress as well as the IMechE International Journal of Automobile Engineering. As a Reliability SME, his passion and focus is in the transfer of knowledge in RCM, TPM, Root Cause Analysis and Reliability Excellence to clients worldwide seeking to achieve manufacturing distinction. Carl has attained a significant level of professional recognition as a Certified Reliability Engineer (CRE) by the American Society for Quality and as a Certified Maintenance and Reliability Professional (CMRP) by the Society of Maintenance and Reliability Professionals.



Darrin Wikoff

Darrin is an experienced business leader with a 17 year career that's led to expertise in Organizational Change Management, Reliability Engineering, and Lean Manufacturing/Administration. For the past eight years, Darrin has continued to coach and mentor many of the world's industrial leaders through the rigorous process of implementing and managing improvement initiatives in support of Operational Excellence. Through his ability to combine technical expertise with process improvement methodologies, Darrin has enabled organizations to increase productivity while significantly reducing operating costs. Most significantly, Darrin has led efforts in North America, Australia, Jamaica, and Brazil as part of Alcoa's global improvement initiative.



Mike Poland, CMRP

Mike Poland specializes in Life Cycle Asset Management with a focus on increasing asset utilization at the lowest total cost of ownership. His expertise is in systems engineering and operational risk management with an emphasis on defect detection and elimination strategies. Mike previously worked for the Department of the Navy as the Life Cycle Engineer and Defense Acquisition Professional for nuclear powered aircraft carriers. He also spent several years as the Engineering and Maintenance Manager for the USS THEODORE ROOSEVELT. Mike has a Nuclear Engineering degree and is a Certified Maintenance and Reliability Professional as well as a Master Training Specialist with DoD certifications in RCM, RCA, and Systems Engineering. He served as a panel member of the American Society for Quality and is frequently requested to facilitate Root Cause Analysis courses.

Reliability Engineering Excellence



Josh Rothenberg, CMRP

Josh Rothenberg is a graduate of the University of Texas at Austin and has been a successful reliability engineer in various industries for the last eight years. With experience in loss elimination, CMMS/EAM implementation, fixed/rotating equipment, logistics, planning/scheduling, and a flair for fostering interpersonal relationships, Josh brings a unique perspective to reliability-centered maintenance that fosters the growth and development of cross-functional teams. As a LCE reliability subject matter expert (SME) and a skilled Six Sigma Black Belt, Josh utilizes the tools honed in the tire manufacturing, specialty chemical, and electronic industries to facilitate transformational, sustainable change.



Sam McNair, PE, CMRP

Sam is a senior consultant with Life Cycle Engineering (LCE). A Professional Engineer and Certified Maintenance and Reliability Professional, Sam has over 32 years of experience in discrete manufacturing, chemical process industries, mining, machine processes, automation, aviation, construction, and utilities. He has over 20 years of experience in implementing maintenance, reliability, and asset management in many of those industries. Throughout his career, Sam has held a variety of positions in information technology, operations management (including lean manufacturing and TPM), maintenance and reliability management, new business development, product and process development, plant and process design, and new plant construction.

Sam is a graduate of Virginia Polytechnic Institute and State University with a Bachelor of Science degree in Mechanical Engineering. He specializes in reliability engineering with a focus on the integration of maintenance and manufacturing functions. Sam holds four US patents for process improvements developed during his tenure with Celanese Corporation.