



**LIFE CYCLE ENGINEERING • LIFE CYCLE ENGINEERING • LIFE CYCLE ENGINEERING**



**RELIABILITY  
ENGINEERING  
CERTIFICATION<sup>SM</sup>**

# Achieve your Reliability Engineering Certification (REC) from one of the top engineering schools in the country!

As a candidate in this program, you will learn practical skills that can be applied on the job right away, demonstrate your commitment to reliability and continuous improvement, and increase your value to your organization.

This certification program will enable you to:

- Build and sustain a strategic reliability engineering program
- Prepare control strategies that reduce risk and improve asset utilization
- Determine predictive strategies and build an effective predictive maintenance program
- Establish a root cause analysis program that will minimize downtime, increase production and create a culture of continuous improvement
- Demonstrate practical learning application
- Use the REC title designation beside your name

To earn a Reliability Engineering Certification, candidates must choose a track, complete four required courses and fulfill a Capstone Work Product requirement.

You will earn a total of 8.4 CEUs for all four courses.

## Reliability Engineering Certification Work Product Requirement

This requirement demonstrates Reliability Engineering competency through documented workplace application.

The work product includes:

1. Criticality ranking
2. FMEA
3. RCA
4. Proposed predictive maintenance
5. Presentation and defense

## Who Should Attend

The REC is for people who are responsible for improving asset and capacity reliability, decreasing repetitive failures, building sustainable predictive maintenance programs, and creating a culture of continuous improvement.



### Sample ROI from program:

- *Eliminated a chronic failure that reduced line downtime by 44%, saving \$17,520/month.*
- *Implemented a new PM inspection to reduce unscheduled downtime by 67%, saving \$130K annually.*
- *Established PdM tasks to increase line OEE by 1.6%, saving \$1M annually.*



## Three ways to earn your Reliability Engineering Certification! Select a format that works best for your schedule and learning style.

	REC	REV VILT	REC Online
<b>Delivery mode</b>	In Person	Live, Online	Self-Paced, Online Launching August 2021!
<b>Courses</b>	<ul style="list-style-type: none"> <li>• Root Cause Analysis</li> <li>• Risk-Based Asset Management</li> <li>• Reliability Engineering Excellence</li> <li>• Predictive Maintenance Strategy</li> </ul>		<ul style="list-style-type: none"> <li>• eRCA</li> <li>• eRCM</li> <li>• eREE</li> <li>• ePdM</li> </ul>
<b>Coursework</b>	In Session	In session. Homework between days.	Complete course modules and assignments at your own pace
<b>Instructor</b>	During class	During class	1 hr coaching/month
<b>Networking</b>	During class	During class	Quarterly group meetings
<b>Timeline</b>	Choose your own class dates from public schedule. Students have 3 years to complete program, but can complete sooner	Choose your own class dates from public schedule. Students have 3 years to complete program, but can complete sooner	9 month commitment
<b>Class times</b>	Tuesday-Thursday 8:30 am – 5:00 pm (time zone depending on location)	Tuesday-Thursday 11:00 am – 5:00 pm EST	Go at your own pace. Students have 2 months to complete each course.
<b>Course sequence</b>	Any sequence	Any sequence	Mandatory sequence
<b>Can you mix classes with other formats?</b>	Yes	Yes	No

# Reliability Engineering Certification Courses

## Root Cause Analysis eRCA in REC Online

### Learning Objectives

- Investigate the RCA methods
- Develop your RCA program
- Prepare to implement the RCA process
- Discuss the advantages and disadvantages and know when to apply PdM technologies
- Manage and be able to effectively use eight RCA tools



## Risk-Based Asset Management eRCM in REC Online

### Learning Objectives

- Describe the four phases in implementing a Risk-Based Asset Management program
- Demonstrate how to effectively classify assets
- Demonstrate methods for analyzing assets
- Map control strategies to predominant failure modes
- List key performance indicators to effectively measure control strategies
- Calculate overall equipment effectiveness



## Reliability Engineering Excellence eREE in REC Online

### Learning Objectives

- Examine the Reliability Engineer role
- Define the essential components of a successful reliability program
- Investigate reliability tools and problem-solving methods
- Discuss ways to optimize your reliability program



## Predictive Maintenance Strategy ePdM in REC Online

### Learning Objectives

- Explain the role of a predictive maintenance (PdM) plan
- Describe PdM theory, application and safety factors
- Recognize visual inspection as a component of PdM
- Draft a predictive maintenance strategy
- Explain how Operating Dynamics Analysis™ manages machinery/assets not monitored by traditional PdM
- Compare your current PdM program to best practices

