

# MAINTENANCE PLANNING SCHEDULING AND CONTROL



Real Time Online Classroom Training



20+ Hours Live Interactive Sessions



Comprehensive Learning Kit



Continuous Learning Validation Certificate



### 16 - 20 May 2022

10:00 - 14:45 Eastern Daylight Time (EDT)

15:00 - 19:45 Greenwich Mean Time (GMT)

www.biiworld.com



# **EXPERT PROFILE**

#### Laurie Dummett

Laurie Dummett is an award winning consultant and trainer with over 25 years experience in maintenance. He has worked across five continents, in a wide variety of environments from the world's largest oil refinery to a small bottling plant. Laurie has 10 years of maintenance management experience in the process industry, so brings a very practical approach to training. He moved into consulting with ABB Eutech as their global maintenance specialist where he led maintenance best practice panels, delivered a wide range of maintenance improvement projects and trained other consultants. Laurie founded his own consultancy, in 2002 to focus on maintenance improvement and best of the best methodologies. As part of this, he developed a range of maintenance "models of excellence" with inputs from authors, international lecturers and some of the world's leading consultants and operators. Laurie remains close to the industry and continues to help operating companies, testing and refining his maintenance models in the process. His work in maintenance improvement has been recognized as bestin-class winning prestigious awards such as the UK Chemicals Industry Association national award for Excellence in Engineering.

#### **Testimonials**

- » "This course was outstanding." (Shell, Turnaround Manager)
- » "Laurie kept the course moving and got his points over very well." (Total, Mechanical Engineer)
- » "This was so much better than the standard training course with more discussion and involvement." (BP Operations Manager)
- » We should all go through the Carcharodon courses.(BP, Maintenance Improvement Leader)
- » There is a lot I need to change when I return to work! (Sasol, lead engineer)
- » Clearly based on best practice, a very good course(Total, Turnaround Manager)
- » This was an exercise that helped set us on the road to success with everyone leaving motivated as well as informed (BP, Business Unit Leader)
- » I have learnt a new approach and look forward to putting this into practice. (Petronas, Contracts Manager)
- » It's not just the fact that Laurie is clearly at the front of his field that was important, it was the way he made it feel logical and kept us interested for the whole three days (Petronas, Engineering team leader)
- » This course has been an eye opener. I now understand the challenges my maintenance colleagues face and also my team's role in helping maintenance succeed. (PDVSA, operations team leader)

# Laurie has helped many notable organisations achieve improved performance through training and consulting advice. These include:

BP
Shell
PDVSA
Lyondell Basell Conoco
Kuwait Oil Company
Engen
Sasol
National Starch Matthew
Clarke
ICI

**Emery Oleochemicals** 

Total
Dow
Technip
Repsol
Saudi Aramco
SABIC
Natref
Nippon Gohsei
Bilfinger
Saltend Chemicals Park
Taunton Cider
Sabah Shell

Du Pont
Petronas
Neste Oil
Petroplus
Satorp
Centrica
Petro SA
Glaxo SmithKline
European Commission
Interserve
FINA
Aramco

Global Technology Forum
Pemex
Brittish Sugar
European Commmission
Coogee Energy
Eastman Chemicals
JX Niuppon O&G Sakhalin
Energy
Vivergo Fuels
Dulux Paints

Petron

Ineos Chemicals
Rugby Cement
Unichema
Conocco
Petroplus Refining
Thai Electric
Malaysia LNG
BASF
British Energy
Vinamul

Preem AB

#### About this course

Whether you are maintaining an oil rig or processing plant, good quality maintenance is critical to delivering a safe reliable product to your customers. Whatever your level of maintenance experience, this course will equip you with the valuable skills and understanding that will enhance your maintenance career.

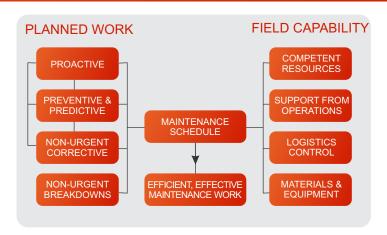
Too often the maintenance department is seen as the cause of why assets are unavailable, in poor condition yet are costing too much to maintain. By comparison, pace setting companies see maintenance as adding value to their assets and employ an integrated, holistic approach to their maintenance activities. This 3-day course will help you move towards that pace setting performance.

Maintenance teams cannot perform without effective integration with operations and supply chain functions. Availability losses are often caused by operations or design issues and pace setting companies have generated significant benefits by integrating operation and maintenance strategies and working more collaboratively.

This course will help all members of the operations and maintenance teams and their supply chain better understand their respective roles in ensuring that maintenance is benefitting and not hurting their business.

This course also has some specific COVID-19 content, specifically a risk assessment model along with the latest thinking on how to minimise the impact as we move into a COVID constrained world. Your lecturer has been involved in two of the largest maintenance projects in the UK as the outbreak hit as well as facilitating digitisation projects that will help not just react to COVID but also use this as a chance to evolve in a way we will value once the COVID risk passes. This experience will be used to provide case studies and exercises for the course.

This course is based on an integrated maintenance model that has been used by leading companies and consultants with success and recognised as best practice. Participants will learn the total impact that maintenance can have on a business, identify key elements (and value) of effective maintenance for their own plants to not only reduce costs but also improve performance. The critical types of maintenance will be covered from day-to-day activities to shutdowns and reliability improvement. The course will break down traditional functional boundaries and encourage a holistic approach to maintenance.



With an organisation's maintenance process only as good as its weakest link, this course will guide participants through all the key steps of a maintenance process and its supply chain. Participants will understand what is considered a good standard for each step in the maintenance process, how to identify the weakest links and subsequently how they can accelerate their performance improvement.

### **Course Objectives**



# By the end of the course participants will be able to:

- --> Explain the challenges and objectives facing maintenance organisations today
- --- Demonstrate the importance of work order systems and use techniques for time estimations and priority assignments
- --- Prepare a preventive maintenance program
- --- Apply project management techniques to effectively manage major maintenance activities and shut downs
- --- Prepare the right Key Performance Indicators (KPIs) to evaluate and improve performance in maintenance
- → Use continuous improvement processes in maintenance to drive performance



#### Who should attend?

This course is not just for maintenance professionals. Maintenance teams cannot perform without effective integration with operations and supply chain functions. Availability losses are often caused by operations or design issues and pace setting companies have generated significant benefits by integrating operation and maintenance strategies and working more collaboratively.

This course will help all members of the operations and maintenance teams and their supply chain better understand their respective roles in ensuring that maintenance is benefitting and not inhibiting their business.

## **Training Methodology:**

- ---> Real Time Virtual Training: This course in an online format in principle does not differ to the direct presentation and assessment (face to face training). This course is organised as a five-day course and all the material in the original syllabus will be presented.
- --> 20+ Hours of Live Interactive Sessions: Q&A round will be provided to interact with the trainer online. Trainer will also be available post course to interact with the attendees.
- ---> Comprehensive Learning Kit: Trainer will provide course materials after the training which will be helpful for the attendees as the future reference in their continuous learning journey

Break Down Day Timing		
Session 1	75 Minutes	
1st Break	10 Minutes	
Session 2	60 Minutes	
2nd Break	10 Minutes	
Session 3	60 Minutes	
3rd Break	10 Minutes	
Session 4	60 Minutes	

# Continuous Learning Validation Certificate:

The attendees will receive soft copy of this certificate only after attending all the 5 days of training.

This certificate will validate and certify the attendees' credibility shown in continuous learning.



### Agenda (5 online tutorial days of 4-5 hours)

#### MODULE 1: GETTING AHEAD OF THE CURVE OF COVID-19

- The impact we have seen
  - --- Safety
  - → Efficiency
  - --- Collaboration
- The need to innovate and digitalise radically, but effectively
- · What to expect in a post COVID world

#### **MODULE 2: OBJECTIVES OF MAINTENANCE**

- Definition of maintenance and asset management
- Challenges and objectives of maintenance
- The modern maintenance strategy
- Maintenance windows
- The benefits case of planning and scheduling
- Classification of roles in maintenance
- · Customer service in maintenance

#### MODULE 3: THE WORKFLOW AND WORK ORDER SYSTEM

- A generic model for managing the maintenance workflow
- Key methods to manage the maintenance workflow efficiently
- · Where people go wrong and how to avoid these
- · Purpose of the Work Order (WO) system
- · Information collected on a WO
- Prioritising maintenance work orders

#### MODULE 4: MAINTENANCE STRATEGIES AND TYPES OF MAINTENANCE

- Definitions of each maintenance type (reactive, preventive, predictive and proactive)
- The relative strengths and weaknesses of each type
- The importance of implementing planned maintenance
- Establishing the schedule
- Job estimating methods
- Understanding risks associated with a PM program





#### MODULE 5: MAJOR MAINTENANCE, SHUTDOWNS & TURNAROUNDS

- The unique challenge of maintenance shutdowns
- · A model of excellence for shutdowns and turnarounds
- · Scope control
- Critical Path Method (CPM)
- · Pace setter habits

#### **MODULE 6: CONTROLLING MAINTENANCE WORK**

- Developing SMART objectives
- Key Performance Indicators (KPIs)
- · Using KPIs to drive the maintenance workflow
- The role of KPIs in fixing problems early at root cause
- Generic maintenance indicators

# MODULE 7: THE ROLE OF PLANNING AND SCHEDULING IN PERFORMANCE IMPROVEMENT

- Maintenance as a business process
- · How planned maintenance can lock in waste and cost
- Drawing learning from recurring maintenance tasks
- Reviewing planned maintenance
- · Dealing with the productivity challenge and improving wrench time
- · Refining maintenance policies



#### MODULE 8: KEY DIGITAL AND SYSTEM CHANGES FOR A POST-COVID WORLD

- Risk assessment process
- · Digital solutions that we are seeing work
- · Simple non-digital solutions that make a difference



#### Does BII Online Virtual Training have the same value as traditional classroom training?

Yes, BII Online Virtual Training offers participants; same training system as in-person, i.e face-to-face engagement with instructors, course material, interactive participation of all delegates, and personal support that they would expect to find in a traditional classroom.

# What are main features of your online courses? Are they on-demand? Is it different content from the in-person offering?

The content of the virtual training is similar to the in-person sessions and customized presentation makes it a richer online learning experience. As always, we will share presentation materials with attendees for later reference.

The online courses are not on-demand and recordings cannot be purchased. They are set on scheduled dates, live with an instructor and co-host via webinar software. While the day is shorter than an in-person session (4hrs vs 8hrs), timing are adjusted to accommodate attendees in different time zones and allow more time for one-on-one conversations via the Q & A.

#### What are the technical requirements for participation in a virtual course?

All you need to participate in virtual training are:

- Desktop or Laptop or Tablet Computer, and Internet connection
- Webcam
- Headset with built-in microphone

#### Can I attend an online training session if I have a Macintosh computer?

Yes, Our Online training systems does allow Macintosh computers, PCs, and computers running Linux to easily enter any of our online training sessions.

#### What type and version of browser will I need for online classes?

It is recommended that you use the latest version of Firefox, Chrome or Internet Explorer for Windows and Firefox or Safari for Mac. Each of these is available for free download and also suggested you have the PDF Reader

#### How do I have access to the trainer for questions?

As in the classroom, you will see the trainer in front of you and have the opportunity to ask questions at any time - all via audio and video transmission.

# Is there a mute option within an online training session to minimize background noise from my audio connection?

Yes, the Mute button will display to the right of your name as you hover your mouse over your name shown in the Participants panel on the top, right side of the Web conferencing screen.

#### What if I miss few sessions of the online training program?

The training will be simultaneously recorded which will be provided to you as per request & requirement

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Yes, you will get a PDF version of your certificate of completion

# **Upcoming Courses 2022**

Online Training	Date	Time	
Masterclass Maintenance and Reliability Practitioners	07 - 11 March	13:0010:00 to 14:00  Eastern Daylight Time (EDT)	13:0010:00 to 14:00 Eastern Daylight Time (EDT)
Maintenance Planning and Scheduling (Spanish)	04 - 08 April	12:00 to 16:30 Central Daylight Time (CDT)	17:00 to 21:30 Greenwich Mean Time (GMT)
Masterclass Maintenance and Reliability Technicians	04 - 08 April	13:00 to 17:00 Eastern Daylight Time (EDT)	17:00 to 21:30 Greenwich Mean Time (GMT)
Masterclass Maintenance and Reliability Practitioners	25 - 29 April	13:00 to 17:00 Eastern Daylight Time (EDT)	17:00 to 21:30 Greenwich Mean Time (GMT)

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