Pumps and Pumping Systems  
- Introduction, Intermediate & Advanced - Live Virtual Course

Course Lecturer:  Bob Went  - Pump Centre Chairman

This 3 day on-line training course will comprise Introduction, Intermediate and Advanced days.

The course will provide those required to design pumping stations, approve designs or advise on improvements to existing pumping systems with the skills they need.

The course will be live and interactive, allowing verbal exchanges with the lecturer, and will include exercises to enable participants to learn the techniques required to design efficient pumping systems.

The Introduction course will cover the basics of fluids, pumping systems and pump construction. The Intermediate course will deal with more advanced fluids principles, pump curves, an introduction to the Pumping System Design Guide and fault finding techniques. Topics covered on the Advanced course include designing pumping systems, sump design, cavitation, series & parallel pumping and variable speed pumping.

**OBJECTIVES**

- Understand how fluid properties affect pump selection and performance.
- Get to know the characteristics and construction of Centrifugal & Positive Displacement pumps and how to get the best out of them.
- Learn how to design pumping systems, produce system curves and understand the interaction between pump and system.
- The course will also cover sump design, pump cavitation, fault finding and how to design series, parallel and variable speed installations.

**PROGRAMME**

- The course will be presented in twelve live sessions, four on each day.
- Each live session will include presentations and audio visual demonstrations.
- Delegates will be able to have live discussions with the lecturer as in a face to face training session.
- A printed copy of the presentation material will be provided to enable notes to be taken more efficiently during the course.

**WHO SHOULD ATTEND**

- Engineers who need to design pumping systems, whether as part of their daily work, or only occasionally.
- Engineers, and others, who assess designs submitted for approval.
- No prior pumping knowledge will be assumed, but those wishing to attend only the Intermediate or Advanced days must have a thorough knowledge and understanding of the subject matter covered in the previous day(s) courses.

For more information and to discuss your training requirements contact:  
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