

## **On-site training** Principal Instructor Simon L. Engel, President, HDE Technologies, Inc.

### **Main benefits:**

1. Economics. These Classes and Workshops offer an economical and efficient alternative to sending employees to the classes offered by HDE to the 'public'. Only the instructor travels! Several employees may attend for a 'flat fee'.
2. Customization. The Classroom and the Workshop training classes may be customized to concentrate on your company's specific laser processing requirements and issues!
3. Special topics. Customized combinations of subjects may be arranged.
4. Intellectual property. Your company's IP and commercial interests are kept confidential!
5. Location. The on-site training classes are offered (most anywhere) in the USA and Canada.

### **Classroom instruction**

Length: 3 to 5 (continuous) days – typical.

Number of people (for flat fee): up to **12**. For additional people there is a nominal extra charge.

Pre-requisites are at least high school education and some laser processing experience.

Time to 'prepare' customized material: typically 4 weeks.

Schedule: arranged at the soonest date available and at the convenience of both your company and HDE.

- **Laser Welding Technology EQ and PQ**
- **Laser Cutting and Drilling Technology** (incl. Thermal and photo ablative)
- **Laser Beam Diagnostics and Application to Material processing**
- **Compliance with (with laser application related published AWS and ISO Technical Standards**
- **Documentation control**

### **Hands-on Workshops:**

Length: 3 to 5 (continuous) days - typical.

Number of people (for flat fee): up to **6**.

Pre-requisite: must have completed one of the HDE Laser Technology classroom course.

The listed subjects are combined in to one Workshop.

Time to 'prepare' the customized material: typically 3 weeks.

Schedule: arranged at the soonest date available and at the convenience of both your company and HDE.

- **Laser System Qualification - Calibration (EQ)**
- **Daily Equipment Qualification (Daily EQ)**
- **Alignment of the beam delivery systems, including finding focus and focus shift**
- **Laser Beam Diagnostics and Application to Material processing**
- **Laser Welding – production and R&D**

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