

Level III Best Practices

Course overview*

This 32-hour course is the final, but essential, educational step for professional infrared thermographers. It is intended for those who use or manage thermography programs on a regular basis, have completed Level II training and have at least two years of practical experience. It is a highly interactive training focused on professional growth and is relevant to both in-plant personnel responsible for thermographic programs and consultants who offer services to the public. Attendees will learn about all aspects of successful infrared programs including reviewing industry best practices, standards, writing procedures and personnel certification. Students will also be challenged with technical and managerial topics essential for studying for the ASNT Level III T/IR method exam.

If you intend to use this course as part of your preparation for the ASNT Level III exam, we strongly recommend you obtain several reference books prior to this course.

Hours

Monday–Thursday

8:00AM–5:00PM

Friday

8:00AM–12:00PM

Course topics

- What is a Level III
- History of thermal measurement
- Modern thermal measurement devices
- Temperature measurement criteria
- Advanced heat transfer applications and theory
- Advanced radiometry—special conditions and applications
- Infrared equipment—choosing, using and optimizing
- IR programs—establishing an ASNT-based written practice
- IR inspections—how to establish a prioritization system that works
- IR inspections—choosing the correct IR inspection methodology
- Establishing and maintaining a thriving condition monitoring program
- What inspection method to choose when thermography is not appropriate
- Marketing IR services to customers and within an organization
- Communicating IR principals to non-technical personnel
- ASNT LIII exam preparation
- Course final exam

Fluke authorized training is provided by our partner,



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Course outlines and objectives

Day One

1. **Course overview**
2. **What is a LIII?**
3. **What is certification?**
 - a. Objective: discuss the different types of certification schemes, their definitions and what each of them mean
4. **History of thermal measurement**
5. **Modern thermal measurement devices**

Day Two

1. **Advanced heat transfer applications and theory**
2. **Advanced radiometry—special conditions and applications**
3. **Infrared equipment—choosing, using and optimizing**

Day Three

1. **Standards**
 - a. Objective: to understand the various infrared standards used around the world for applications and IR equipment
2. **Written procedures**
 - a. Objective: a discussion of why written procedures are important, qualities of a good procedure as well as how to write one
3. **IR inspections—how to establish a prioritization system that works**
4. **Review of applications: Electrical, mechanical, building and low-slope roofs**
 - a. Objective: to review the mainstream maintenance and building applications

Day Four

1. **IR non-destructive testing applications**
 - a. Objective: to learn the different types of NDT inspections with IR and understand how to perform them in the field
2. **Safety during IR inspections**
 - a. Objective: to ensure thermographers understand potential risks and hazards while performing their job in a wide range of applications
3. **Using IR windows and viewports**
 - a. Objective: discuss the practical effect of using IR windows and viewports and how to obtain accurate data when viewing through them
4. **Other applications for infrared thermography**
 - a. Objective: to learn more about the wide range of other more specialized applications of infrared thermography
5. **Establishing routes and frequencies**
 - a. Objective: discuss the reasons to have them, the various types there are and how to build them back at the workplace
6. **ASNT Level III—exam preparation; sample questions**
 - a. Objective: discover the types and depth of example questions that might appear on the IR/T method examination

Day Five

1. **Calculating cost benefits and savings**
 - a. Objective: to understand the wide range of how thermographers make these calculations and the pros and cons to each methodology
2. **ASNT Level III—exam preparation; body of knowledge, study and test tips**
 - a. Objective: learn the body of knowledge and resource books, as well as study and testing tips for the IR/T method examination

For more information go to www.fluke.com/infraredtraining or contact your local authorized Fluke representative.

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