

Level II

Advanced Infrared Thermography

This is a 32-hour course that will teach you advanced theory and applications of infrared thermography in the preventive maintenance, quality assurance, condition monitoring and basic nondestructive testing of materials fields.

This course focuses on radiometric temperature measurement and how taking accurate temperatures improves the diagnosis and interpretation of thermal situations. It delves deeply into the concepts of emissivity, reflected temperature compensation as well as spatial and measurement resolution. Other topics include: inspecting through transmissive films and windows and the use and limitations of IR mirrors. Includes the Snell Certification Standard; in a course developed in accordance to ASNT recommendations.*

Course outline

Monday 3:00PM–6:00PM

- Introduction and course overview
- Keynote presentation: “Think Thermally®”
- Review of IR equipment and image quality considerations
- Introduction to quantitative thermography

Tuesday 8:00AM–5:00PM

- Quantitative heat transfer and temperature measurement considerations:
- Radiation
 - Reflected energy, transmitted energy, IR filters and their use, infrared windows
- Live demonstrations of quantitative heat transfer
- Hands-on experiments and discovery: transmission, reflection and filters

Wednesday 8:00AM–5:00PM

- Review
- Quantitative heat transfer, continued
 - Emitted energy
- Radiometric measurements: calibration, spatial and measurement resolution
- Quantitative heat transfer, continued
 - Conduction
- Hands-on projects: practice working with imaging systems and presentations

Thursday 8:00AM–5:00PM

- Review
- Quantitative heat transfer, continued
 - Convection
 - Capacitance and state change
- Certification discussion
- Hands-on project: machine study and field exercises
- Practical camera exam (optional for those seeking ASNT compliance)

Friday 8:00AM–12:00PM

- Review
- Prioritization and report considerations
- General exam
- Specific exam (optional for those seeking ASNT compliance)

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

Fluke authorized training is provided by our partner,



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