

Date: TBD

**Location: Western Kentucky University Center for Research and Development
2413 Nashville Road, Bowling Green, KY 42101 Room 129**



INDUSTRIAL THERMOLOGIST
KENTUCKY THERMAL INSTITUTE

DAY 1

8:30 AM

Introductions

Institute Welcome
Educators
Staff
Students

Certification Summary

Expectations of Course / Testing Standards

What is a Thermologist?

Thermologist vs Thermographer
ITC Levels of IR
Impact on Industry/ FLIR History
Applications

The Science of Infrared

Infrared Wavelengths
The 1st Law of Thermodynamics
The Principles of IR

10:00 AM

BREAK - 10 Minutes

FLIR Camera Introduction

Camera preparation training for labs
Hands on Training with Demo Units to reinforce the Science of Infrared
Bluetooth and WiFi Connectivity

Qualitative Data with IR

Qualitative vs Quantitative
MSX
The importance of an accurate scan
Spatial Resolution
Focus, Range, Distance

1 HOUR LUNCH - Provided

Agenda content and course structure subject to change dependant upon training location.

What to Bring: writing utensil, thermal camera (if applicable), laptop.



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DAY 1 CONT.

12:30 PM

Qualitative Data with IR, Continued.
Infrared Windows

2:00 PM

BREAK - 10 Minutes

Moisture Intrusion and How it Relates to Industrial Equipment
Infrared Roof Scanning
How Roof Leaks Affect your Facility
Methods for IR Roof Scanning
Moisture Intrusion and how it Relates to Electrical Equipment
Locating and Tracing Moisture in your Facility

3:00 PM

BREAK - 10 Minutes

FLIR Tools + Image Tuning
Live Image Tuning
Reporting
Reporting Verbiage

4:00 PM

FLIR Camera Training
Full Thermal Camera Training for Practical Usage

5:30 PM

Day 1 Education Completed



What to Bring: writing utensil, thermal camera (if applicable), laptop.



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DAY 2

8:30 AM

Day 1 Review
Day 1 Quiz

Thermal Applications for Industrial Electricity

Power Distribution

Transformers

Motor Control Centers

Motor Starters

Busbar and Bus Ducts

10:00 AM

BREAK - 10 Minutes

Infrared Imaging of:

Breakers

Fuses

Motors

Common Motor Issues

Identification of Motor Issues

Belts, Bearings, Pulleys, and Alignment

11:00 AM

1 HOUR LUNCH - Provided

12:00 PM

Equipment Identification

How to Identify and Label your Equipment

Review Facility Layout and list Equipment to Scan

Route Layout (*you must bring a diagram of your floor plan*)

How to Conduct a Productive Scan

Custom Infrared Inspection Routes for your Facility

Infrared Widows in your Facility and where to install them

2:00 PM

BREAK - 10 Minutes

What to Bring: writing utensil, thermal camera (if applicable), laptop.



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DAY 2 CONT.

4:00 PM

Hands on with Industrial Equipment Samples - **Team Building**
Hands on with FLIR Equipment in a Mock Industrial Setting
PM and PdM Inspection Practice

BREAK - 10 Minutes

Convene in Classroom
Class review of images acquired
Report Writing 101

FLIR Tools + Report Writing Software
Review of Field Images
Student Reporting Session
Review of Reporting Verbiage and Criteria

5:30 PM

Day 2 Education Completed

Agenda content and course structure subject to change dependant upon training location.



What to Bring: writing utensil, thermal camera (if applicable), laptop.



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DAY 3

8:30 AM

Team Exercises
Field Simulation to Implement Proper Imaging and Communication Practices
Criteria: Team 1 processes the infrared image and identifies fault, Team 2 creates report based on Team 1’s findings.

Route Confirmation
Review of your new route

Break as Needed

10:00 AM

**Complete Review of Course Content
Individual Assessments**

12:00 PM

1 HOUR LUNCH - Provided

Open Ended Thermography Training
Strategic Targeting of Assessment Results

Final Examination
*Review and Correction of Answers
Report Submission*

Certification Awarding

Agenda content and course structure subject to change dependant upon training location.

