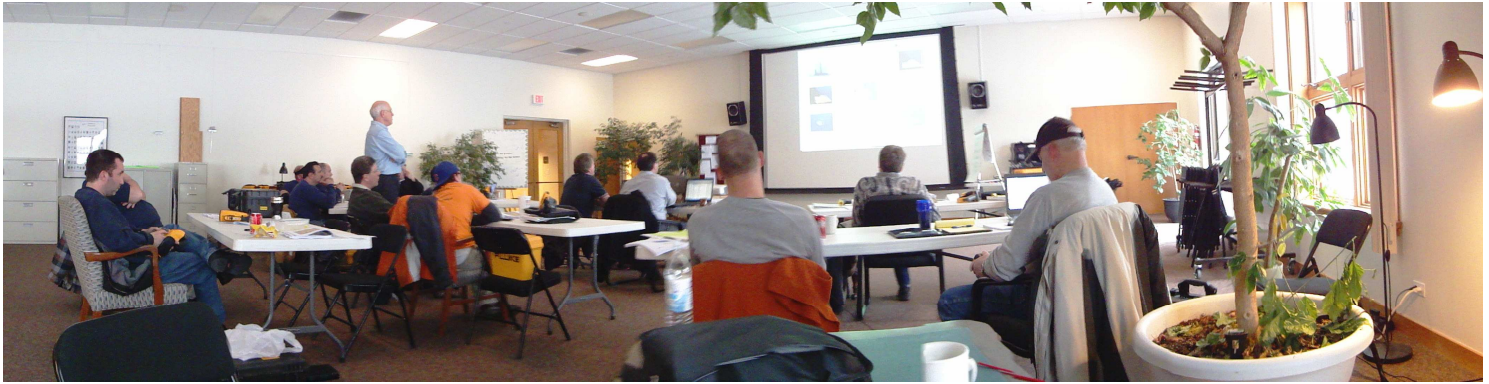


Level 2 Infrared Thermography Training

Advanced Thermography Applications

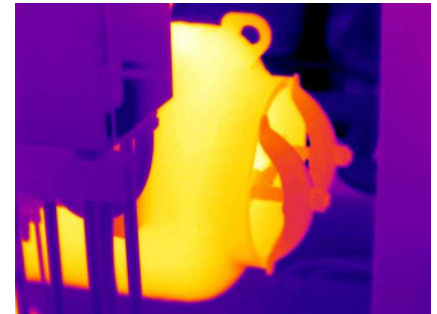
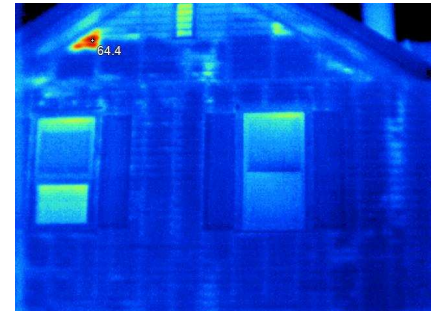


A 32-hour quantitative thermography course designed for practicing thermographers interested in advancing their knowledge and capabilities. This class covers advanced theory and applications of infrared thermography in predictive and preventive maintenance, quality assurance, condition monitoring and nondestructive testing of materials fields.

Level II focuses on radiometric temperature measurement and the cases where taking accurate temperatures improves the diagnosis and interpretation of thermal situations. The course 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 IR windows as well as the use and limitations of IR mirrors.

The Level II course extends the knowledge gained in Level I on infrared theory and heat transfer concepts. Students leave aware of the full operational capabilities of their radiometric thermal imaging equipment and are challenged daily with hands on demonstrations, experiments and inspection situations similar to those they will experience in the field.

This course fully meets the educational requirements for certification according to the published recommendations of ASNT and The Snell Certification Standard. The class is open to everyone regardless of whether or not they own a thermal imager. Attendees that do have equipment are encouraged to bring their systems as there are a number of hands-on learning opportunities available during the week.



Part Number/Description	
<p>SNELL-LEVEL2-GEN Snell Group Level 2 Advanced Infrared Thermography Applications Training 32 hour class and exams.</p> <p><i>See course outline and general schedule on next page.</i></p>	

For current course schedule, ordering assistance, or cancellation/refund policy, please contact:

Fox River Systems, Inc.
 902 S. Randall Rd.
 Suite C, #328
 St. Charles, IL 60174 USA

Tel: (630) 365-4030
 Fax: (630) 365-4031
www.FoxRiverSystems.com

Level 2 Training—Advanced Thermographic Applications by The Snell Group

Day 1 (8 hours):

- Introductions and course overview
- Keynote presentation: “Thinking Thermally™”
- Review of Level I IR concepts
- Introduction to quantitative thermography
- Hands-on equipment use: IR imaging techniques evaluation
- Heat Energy and Temperature
- Quantitative heat transfer: radiation
- Hands-on demonstrations of quantitative heat transfer

Day 2 (8 hours):

- Review and Q&A
- Radiometric measurements: emissivity, reflectivity, transmissivity, and filters
- Hands-on exercise: determining emissivity and reflectivity
- Radiometric measurements: calibration, spatial, and measurement resolution
- Demonstrations: calibration, spatial and measurement resolution
- IR detector and data acquisition rates and the impact on image quality

Day 3 (8 hours):

- Review and Q&A
- Hands on exercise: determining spatial & measurement resolution for students imaging systems
- Quantitative heat transfer: conduction, convection, thermal capacitance and state change
- Demonstrations: convection, capacitance and state change
- Computer IR analysis and report development including use of spot, line, area, isotherm, and histogram and how to select palette that will emphasize the findings.
- Field Work: quantitative thermal inspection and data gathering from electrical and mechanical equipment.
- Student presentations: quantitative IR presentations

Day 4 (8 hours):

- Review and Q&A
- Hands on project: Machine study for a machine undergoing transient thermal event
- Student presentations based on hands-on/project work
- Prioritizing findings: parameters and using an inclusive model
- Problem solving exercise: prioritizing thermal anomalies
- Course review
- Course comprehension exam
- Snell Standard Certification Specific examination (optional)

CERTIFICATION:

Students are only required to take the 50 question course comprehension exam to successfully complete the course. Additionally, students will have the opportunity to take an optional Snell Specific Certification examination.

The specific exam will be based on accepted ASTM, ISO, NFPA, NETA, IEEE, OSHA, EPRI, and BINDT methodologies to perform testing in the field.

In the absence of having written procedures, each student will be given a summary of the applicable standard that applies to your work. You will also leave with a copy of a Written Practice which is a suggested guideline on how to organize and manage a certification program for your company. It is a straight forward document and process to set up a program, but it has critical importance in describing the educational experience and testing requirements for certification for your organization. As part of the course fee we will help you after the course to put in place a meaningful and effective written practice.

The curriculum and all instructors are overseen by ASNT Level III Certificate Holders.

	MON	TUE	WED	THU	FRI
8am	Operational Readiness Training (4 hrs) *Optional Course for users of Fluke Thermal Imagers	Snell Group Level 2 Advanced Infrared Thermography Applications (Part 1/2—8 hrs)	Snell Group Level 2 Advanced Infrared Thermography Applications (Part 2/3—8 hrs)	Snell Group Level 2 Advanced Infrared Thermography Applications (Part 3/4—8 hrs)	Snell Group Level 2 Advanced Infrared Thermography Applications (Part 4 - 4 hrs)
12pm					
1pm	Snell Group Level 2 Advanced Infrared Thermography Applications (Part 1—4 hrs)				Training concludes at 12pm
5pm					



Level 2 Infrared Thermography training and certification exams are provided by The Snell Group in association with Fox River Systems, Inc.

All Rights Reserved.

