ESI offers LI-6400 and LI-6400XTR training at its Head Quarters Office or any location convenient to you. You will be informed via email on listing for the Training Course at specific dates. These courses are hands-on and therefore we encourage you to bring your own LI 6400/LI6400 XT.

The courses are specifically designed for people who have little or no experience with the LI-6400 but may be useful as a refresher to people with more experience. Some of the topics covered during the courses include:

- Fundamentals of making gas exchange measurements
- LI-6400 Hardware and software introduction
- Environmental control
- Making survey and response curve measurements
- Software configuration
- Maintenance, calibration and troubleshooting

Registration

Registration can be made through email to us, or for more information email the training coordinator. Plan to register as soon as possible, as class sizes are limited and usually fill up quickly. You must register 30 days prior to the session. After that, you may register only if there is space available. ESI reserves the right to cancel a session 30 days prior.

Travel & Lodging

Breakfast and lunch are included. Attendees are responsible for their own travel, lodging, and other meal expenses. ESI will handle all lodging arrangements if required.
Requirements (Optional)

It will be an advantage to bring your own LI-6400/6400XT instrument.

Training Course Module 1
Gas Exchange

This is a two-day training course. It covers the fundamentals of gas exchange measurements. It includes an introduction to the LI-6400XT hardware and software. At the end of the course a participant should be able to setup and make gas exchange measurements with the LI-6400. A typical schedule is as follows:

Day 1:
- Fundamentals of making gas exchange measurements
- LI-6400XT hardware and software introduction
- Environmental control
- Making survey measurements
- Data viewing and downloading

Day 2:
- Instrument preparation checklist and troubleshooting
- Making response curve measurements
- Software configuration
- Maintenance and calibration
- Custom Topics, some possible subjects include: Water Use Efficiency (WUE), soil CO₂ flux, custom chambers, etc.

Cost

Contact us for more information on pricing. We provide quality training at reasonable rates along with friendly and efficient service.
Training Course Module 2
Gas Exchange plus Fluorescence

This is a three-day training course. The first two days are the same as the two-day course (Training Course Module 1). The third day includes an introduction to fluorescence and evaluating the light reactions of photosynthesis using the 6400-40 Leaf Chamber Fluorometer. A typical schedule is as follows:

Day 1:
- Fundamentals of making gas exchange measurements
- LI-6400XT Hardware and software introduction
- Environmental control
- Making survey measurements
- Data viewing and downloading

Day 2:
- Instrument preparation checklist and troubleshooting
- Making response curve measurements
- Software configuration
- Maintenance and calibration

Day 3:
- Fluorescence theory introduction
- Basic fluorescence measurements
- Combined fluorescence and gas exchange measurements
- Custom Topics, some possible subjects include: Water Use Efficiency (WUE), soil CO₂ flux, custom chambers, etc.

Cost

Contact us for more information on pricing. We provide quality training at reasonable rates along with friendly and efficient service.

*Please note: if you are new to both gas exchange and fluorescence, we recommended you first attend the 2-day gas exchange course.
Training Course Module 3A
Leaf Area

This is a one-day training course. It covers the fundamentals of leaf area light measurements. It includes the introductions, applications, and training for using leaf area meter (LI 3100C), portable area meter (LI 3000C), and plant canopy analyzer (LAI 2200). A typical schedule is as follow:

Morning Session:

- Fundamentals of making leaf area measurements
- LI 3100C Area Meter Introduction
- LI 3000C Portable Area Meter Introduction
- LAI 2200 Plant Canopy Analyzer Introduction
- LAI 2000 Plant Canopy Analyzer Applications
- LAI 2200 Operational Summary
- Hands On Approach

Training Course Module 3B
Light

Plant growth and development is significantly influenced by both the quantity and the quality of light. Light energy is relevant to other factors too. The ET calculation (evapotranspiration) for irrigation scheduling uses solar radiation as a key variable. Leaf wetness periods or high humidity, which affects disease pressure, can be mitigated with sunny days versus cloudy days. It is essential that growers understand this important variable in order to efficiently produce quality plants. A typical schedule is as follow:

Afternoon Session:

- Introduction to LI-COR Light Meters and the Theory of Light
- Terrestrial Quantum
- Underwater PAR measurement
- Pyranometer
- Photometric
- Datalogger and Light Meters
- Operational Summary for Light Meters

Cost

Contact us for more information on pricing. We provide quality training at reasonable rates along with friendly and efficient service.
**Training Course Module 4**  
**Automated Soil CO₂ Flux System**

This is a one-day training course. It covers the theory behind soil flux and respiration up to the factors that determine it. As we go along the course, participants will be taught on how to handle the LI 8100 together with its assorted chambers. The handling of the LI 8100 will also include data transfer, soil flux data interpretation, and software configuration. Last but not least, participants will also learn the dos and the don’ts while operating the LI 8100 to ensure proper data capture during research work.

**Morning Session:**
- Introduction to Soil Flux and Respiration
- Soil Respiration
- Controlling factors of Soil Respiration
- Soil Flux

**Afternoon Session:**
- Hardware and Software
- Principles of Operation
- Software Overview

**Cost**

Contact us for more information on pricing. We provide quality training at reasonable rates along with friendly and efficient service.
Training Course Module 5
Eddy Covariance

In a world where global warming has become an integral part in climate change, eddy covariance method has been long used worldwide to measure important greenhouse gases. Therefore, the objectives of this three days training course are: (i) to understand eddy covariance theory, experimental design, and applications, (ii) to become skilled at setting up and operating eddy covariance systems, and (iii) to be able to process raw flux data with EddyPro. Participants will be exposed to both the theory defining the eddy covariance and the primary instruments that are used to measure eddy. The training class will also cover hardware and software configuration which should not be overlook when doing the eddy covariance measurement.

Day 1

Eddy Covariance Theory
Eddy Covariance Experimental Design and Applications
Operation Theories of CO₂/H₂O and CH₄ analyzers
Operation Theories of Sonic Anemometer

Day 2

Setting up Eddy Covariance System
Software, Operation, and Maintenance
Calibrations of the LI 7500A and LI 7700

Day 3

Data Processing Overview
EddyPro and File Viewer software installations and sample data
Hands-on step-by-step GHG data processing
Explanations on EddyPro Outputs
Class Discussion and Summary

Cost

Contact us for more information on pricing. We provide quality training at reasonable rates along with friendly and efficient service.