

# Upcoming Training Courses

## **FSPV: Fundamentals of Solar PV Design & Installation - \$1,199**

In-person | September 9-13, 2024  
Early-bird pricing ends Aug. 9 - \$1,019

## **ASPV: Advanced Solar PV Design & Installation - \$1,499**

In-person | October 21-25, 2024  
Early-bird pricing ends Sept. 13 - \$1,274

## **O&M: Operations & Maintenance of Photovoltaic Systems - \$699**

In-person | November 14-15, 2024  
Early-bird pricing ends Oct. 11 - \$594

## **Solar Storage Workshop - \$799**

In-person | November 18-20, 2024  
Early-bird pricing ends Oct. 18 - \$679



**Learn More & Register:**  
[go.ncsu.edu/training-courses](https://go.ncsu.edu/training-courses)

**Questions? Contact Us:**  
[cleanenergy@ncsu.edu](mailto:cleanenergy@ncsu.edu)

### **FSPV: Fundamentals of Solar PV Design & Installation**

**Course Description:** This 40-hour course is dedicated to the technical aspects of PV design and installation. It focuses on system types, components, applications, design, and best practices for installation, maintenance, and troubleshooting. The first four days are taught in a classroom format and focus on technical theory. On the fifth day, the class installs a fully integrated grid-tied PV system, combining the classroom content with hands-on experience.

### **ASPV: Advanced Solar PV Design & Installation**

**Course Description:** This 40-hour advanced photovoltaic course covers advanced topics on the design and installation of residential and commercial PV systems. This course delves into the details of electrical standards and codes. The bulk of this week-long course covers topics relating to the National Electrical Code® (NEC) requirements for PV systems and proper code compliance in the design and installation phases of the systems.

### **O&M: Operations & Maintenance of Photovoltaic Systems**

**Course Description:** This 16-hour course focuses on the operation and maintenance of PV systems. The first part covers evaluating system performance, including specific data collection and evaluation, arc flash requirements finding ground faults, thermal imaging, IV curve tracing, and fuse servicing. The second part involves various hands-on activities in which participants are able to practice and utilize the skills they have learned throughout the course.

### **Solar Storage Workshop**

**Course Description:** This 24-hour course covers fundamental principles of battery-based systems, including understanding customer needs; specifying and sizing a battery bank, inverters, and charge controllers for battery-based systems; defining system architecture and functionality; battery metering; and understanding the code implications of these systems. The course will end with a tour of a commercial PV installation with a battery system.

### **REPD: Renewable Energy Project Development**

**Course Description:** The goal of the 40-hour, 9-week online course is to provide a sound foundation regarding existing renewable energy technology applications, solar fundamentals, and business practices of project development. The course will delve into the policies that currently dictate the market, options for funding a project and financial modeling, and what considerations need to be made when developing a project. The course includes live and pre-recorded webinars and assignments completed virtually. Students are required to submit a final project report to successfully complete the course.