



# Solar Photovoltaics

## L1 SOLAR PHOTOVOLTAIC SYSTEMS INSTALLER



LEVEL 1



### Curriculum Notes

- 217.5 Hours (Includes 72.5 hours of Core Curriculum, which is a prerequisite for Level 1 completion and must be purchased separately. See p. 14 for ordering information.)
- Published: 2011
- Developed using NABCEP's PV Task Analysis and aligned with NABCEP's PV Installer Certification.
- Downloadable instructor resources that include module tests, PowerPoints®, and performance profile sheets are available at [www.nccer.org/irc](http://www.nccer.org/irc).
- *Introduction to Solar Photovoltaics* (Module ID 57101-10) has been approved for 40 general continuing education hours under GBCI's Credential Maintenance Program.
- NCCER is a recognized accrediting body for institutions to become providers of the NABCEP Entry Level Exam.
- This craft requires additional instructor qualifications. For more information, contact NCCER Customer Service at 1-888-622-3720 or visit the craft page at [nccer.org](http://nccer.org).

### PAPERBACK

Trainee Guide: \$67  
 Instructor's Guide: \$67

### ISBN

978-0-13-257110-4  
 978-0-13-257117-3

### MODULES

All of the modules listed below are included in the Trainee Guide and the Instructor's Guide. The following ISBN and pricing information is for ordering individual modules only.

#### Introduction to Solar Photovoltaics (40 Hours)

Trainee \$22 ISBN 978-0-13-213726-3  
 Instructor \$22 ISBN 978-0-13-213727-0  
 (Module ID 57101-11) Covers the basic concepts of PV systems and their components, along with general sizing and electrical/mechanical design requirements. Provides an overview of performance analysis and troubleshooting. Successful completion of this module will help prepare trainees for the North American Board of Certified Energy Practitioners (NABCEP) PV Entry Level Exam.

#### Site Assessment (10 Hours)

Trainee \$20 ISBN 978-0-13-266202-4  
 Instructor \$20 ISBN 978-0-13-266207-9  
 (Module ID 57102-11) Explains how to determine customer needs, assess site-specific safety hazards, conduct a site survey, and identify a suitable location for the PV array and other system components. Also explains how to acquire and interpret site solar radiation and temperature data.

#### System Design (25 Hours)

Trainee \$20 ISBN 978-0-13-266203-1  
 Instructor \$20 ISBN 978-0-13-266208-6  
 (Module ID 57103-11) Describes system design considerations, including array configurations, component selection, and wire sizing. Covers bonding, grounding, and the selection of overcurrent protection and disconnects.

#### System Installation and Inspection (60 Hours)

Trainee \$20 ISBN 978-0-13-266204-8  
 Instructor \$20 ISBN 978-0-13-266209-3  
 (Module ID 57104-11) Explains how to use the information from the site assessment and system design documents to safely install a photovoltaic array and other system components.

#### Maintenance and Troubleshooting (10 Hours)

Trainee \$20 ISBN 978-0-13-266205-5  
 Instructor \$20 ISBN 978-0-13-266210-9  
 (Module ID 57105-11) Covers basic system performance monitoring and troubleshooting procedures, including record-keeping requirements.

