

## Los Angeles Trade-Technical College Stackable Certificates and Degrees: *A Promising Approach for Preparing Students to Succeed in College and Careers*



The Division of Workforce and Economic Development, at Los Angeles Trade-Technical College, has begun to develop stackable certificates/degrees\* in an effort to increase students' ability to successfully obtain both college and industry recognized credentials to advance within one or more career and/or educational pathways.

(\*Pending California Community College Chancellor's Office approval).



While each stackable certificate and degree is tailored to meet the desired program objectives, employment/labor market, and advanced degree pathways for a targeted industry, they all have several elements in common as follows:

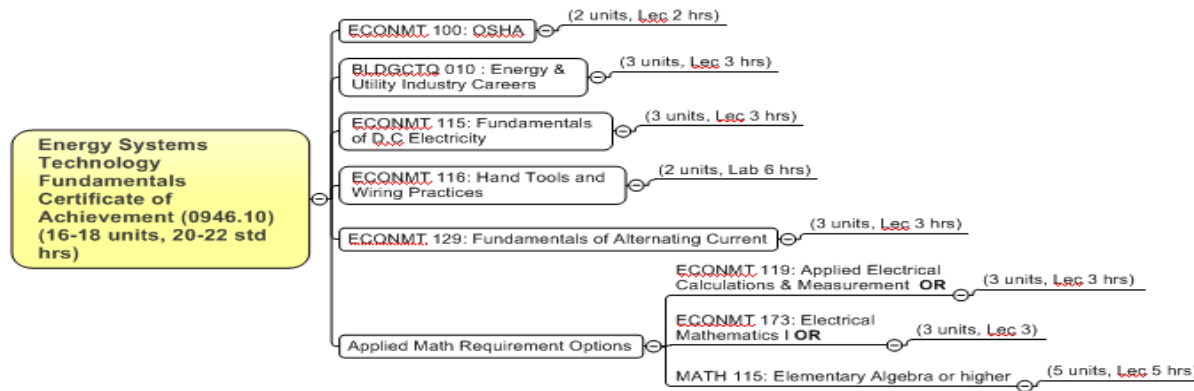
1. The first certificate in the "stack" is considered a "fundamentals" certificate. Each fundamentals certificate includes, but is not limited to, the following:
  - a. Industry-wide and industry-sector skills and competencies to successfully prepare individuals for entry-level occupation(s) within a specific industry sector. The college utilizes the Department of Labor [Competency Model Framework](#), in collaboration with industry partners, to identify the skills and competencies in Tiers 4 - 6 that become instructional/learning objectives for courses comprising the fundamentals certificate.
  - b. Applied mathematics course(s) (and/or in some cases algebra).
  - c. Linkages to at least one industry-recognized credential (if available or applicable) by incorporating the knowledge, skills, and abilities necessary to obtain the credential as instructional/learning objectives for courses comprising the fundamentals certificate. The Occupational Safety and Health Administration (OSHA) 10 hour construction occupational safety and health card is an example of a credential that has been incorporated in the college's [Energy Systems Technology Fundamentals Certificate of Achievement](#).
2. The second certificate in the "stack" is considered a "core technical" certificate. Each core technical certificate includes, but is not limited to, the following:
  - a. Occupation-specific skills and competencies to successfully prepare individuals for targeted occupation(s) within a specific industry sector. The college utilizes the Department of Labor [Competency Model Framework](#), in collaboration with industry partners, to identify the skills and competencies in Tiers 6 - 8 that become instructional/learning objectives for courses comprising the core technical certificate.
  - b. Linkages to at least one industry-recognized credential (if available or applicable) by incorporating the knowledge, skills, and abilities necessary to obtain the credential as instructional/learning objectives for courses comprising the core technical certificate. The North American Board of Certified Energy Practitioner's (NABCEP) PV Installer certification is an example of a credential that has been incorporated in the college's [Solar PV Installation and Maintenance Technician Certificate of Achievement](#).
3. The AA/AS degree is the third point in the "stack". Each AA/AS degree in the stack includes, but is not limited to, the following:
  - a. Advanced technical skills to successfully prepare individuals for targeted occupation(s) that are typically more advanced on the career ladder (e.g., professional, management, etc.) within a specific industry sector. The college utilizes the Department of Labor [Competency Model Framework](#), in collaboration with industry partners, to identify the skills and competencies in Tiers 8-9 that become instructional/learning objectives for advanced technical courses in the degree program.

- b. Includes competencies to enable individuals to pursue other career paths within a specific industry sector. For example, in LATTC's Solar PV AS degree program, advanced technical courses may be taken in solar thermal and/or energy efficiency technical areas.
- c. Linkages to at least one industry-recognized credential (if available or applicable) by incorporating the knowledge, skills, and abilities necessary to obtain the credential as instructional/learning objectives for courses comprising the degree. The North American Board of Certified Energy Practitioner's (BPE) Building Analyst certification is an example of a credential that has been incorporated in the college's [Renewable Energy AS Degree with Emphasis in Energy Efficiency](#).
- d. General education courses necessary to satisfy the AA/AS degree and/or 4-year university transfer requirements, typically 18 units.

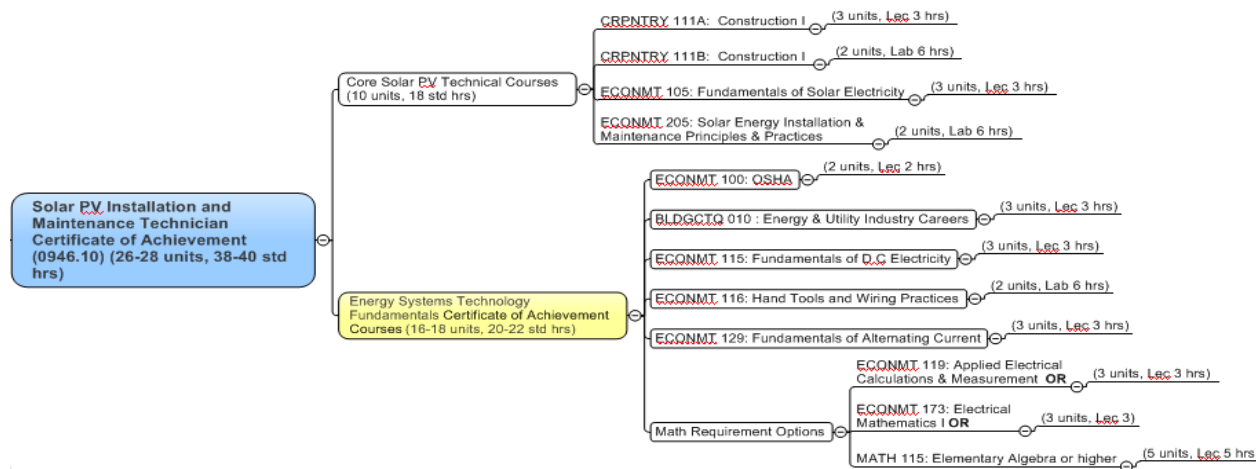
In addition, the college has developed short-term, "prep" programs for students who may need additional instructional time to be successful in completing these stackable certificate and degree programs and, in addition, a college "bridge" program to ensure students are prepared for college-level instruction.

On the following pages are examples of the "stackable" certificate and degree programs that were developed by the college in renewable energy industry/career pathways.

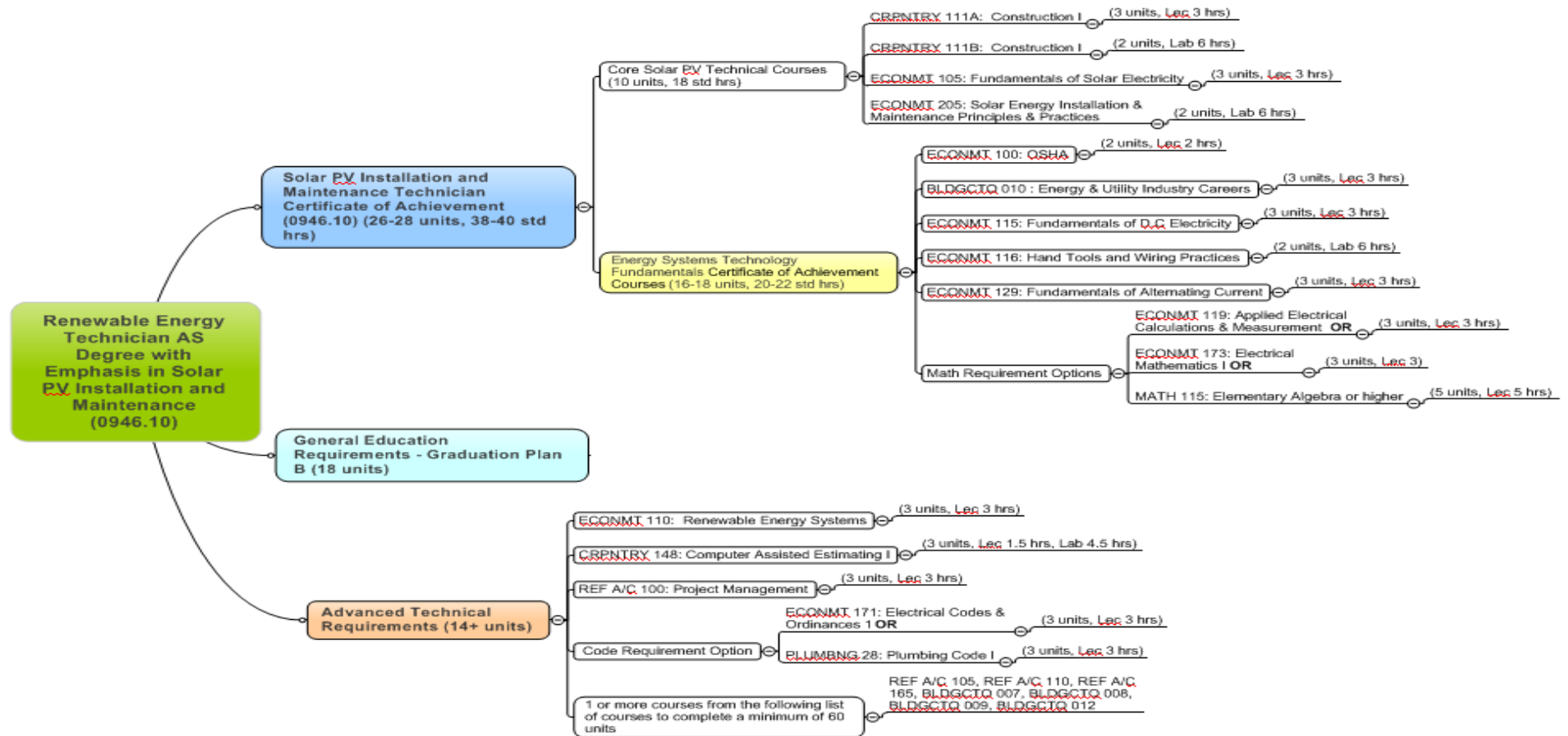
## LATTC Energy Systems Technology Fundamentals Certificate of Achievement



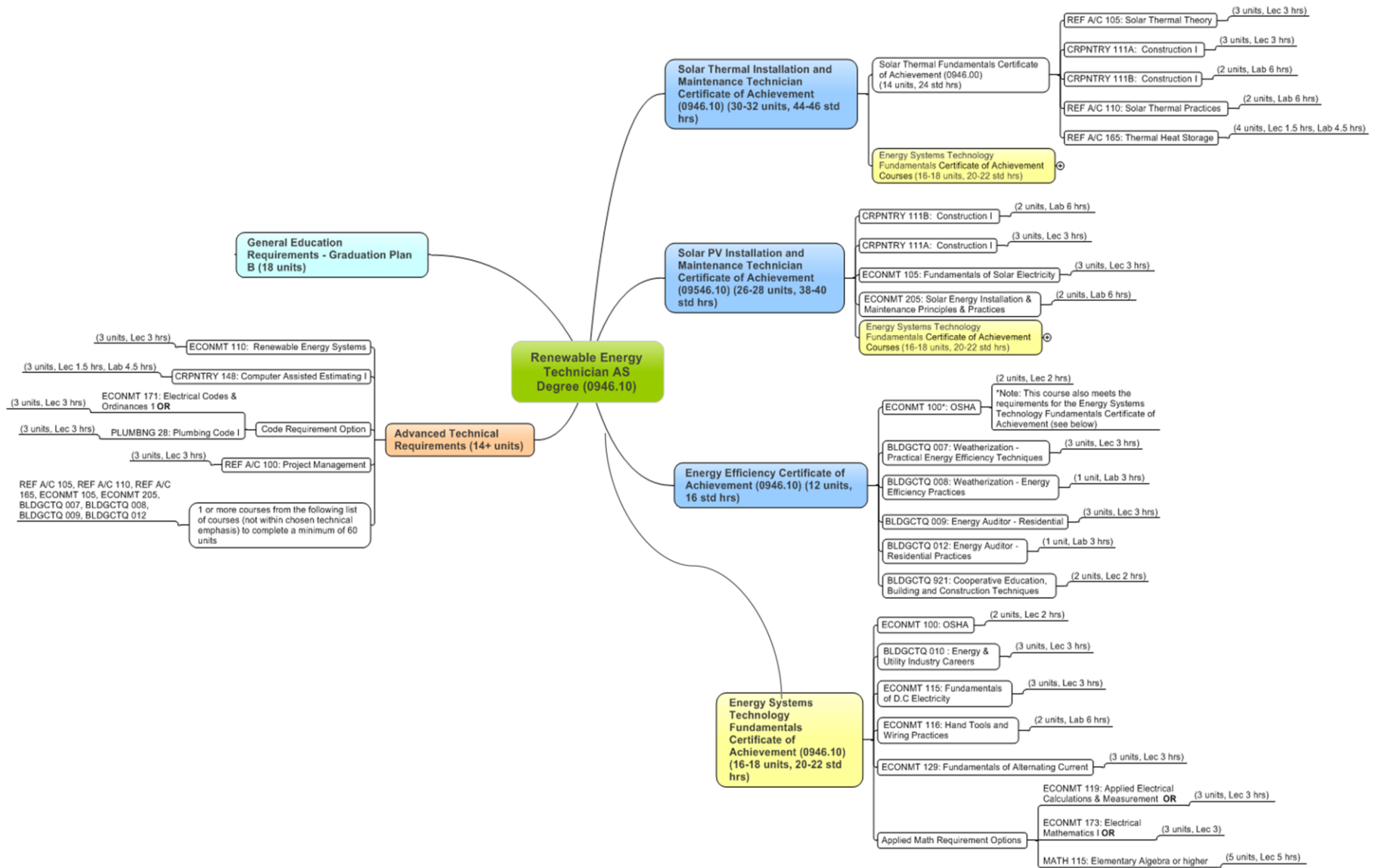
## LATTC Solar PV Technician Certificate of Achievement



# LATTC Renewable Energy AS Degree – Solar PV Emphasis



# LATTC Renewable Energy Technician Stackable Certificate and Degree Programs



## LATTC Renewable Energy Technician Stackable Certificate and Degree Programs

