

# Program of Study: Construction Technology Level 1



<b>Level 1</b>	Principles of Construction Building Maintenance Technology I
<b>Level 2</b>	Construction Management I
<b>Level 3</b>	Construction Technology I
<b>Level 4</b>	Construction Management II Construction Technology II
<b>Level 5</b>	Extended Practicum in Construction Management

HIGH SCHOOL/INDUSTRY CERTIFICATION	CERTIFICATE / LICENSE*	ASSOCIATE'S DEGREE	BACHELOR'S DEGREE	MASTER'S/DOCTORAL PROFESSIONAL DEGREE
NCCER Construction Technology	Construction Technology Level 1	Construction Technology	Construction Science and Management	Materials Engineering
NCCER Core Curriculum	Construction Technology Level 1	Construction Technology	Construction Science and Management	Business Administration and Management, General
OSHA 30 Hour Construction	Construction Technology Level 1	Mechanical Engineering	Mechanical Engineering	Mechanical Engineering
NCCER Construction Site Safety Technician	Construction Technology Level 1	Business/Commerce, General	Business/Commerce, General	Manufacturing Engineering

Occupations	Median Wage	Annual Openings	% Growth
Construction and Building Inspectors	\$53,914	983	17%
Cost Estimators	\$63,939	2,239	21%
Construction Managers	\$87,402	2,401	14%

Additional industry-based certification information is available on the TEA CTE website. For more information on postsecondary options for this program of study, visit TXCTE.org.

WORK BASED LEARNING AND EXPANDED LEARNING OPPORTUNITIES	
<b>Exploration Activities:</b>	<b>Work Based Learning Activities:</b>
Shadow a building inspector or cost estimator SkillsUSA	Intern with a construction company shadowing project managers or inspectors

The Building Codes and Inspection program of study explores the occupations and educational opportunities associated with cost estimates for construction projects or services to aid management in bidding on or determining the price of products or services. This program of study may also include exploration into inspecting structures using engineering skills to determine structural soundness and compliance with specifications, building codes, and other regulations.



The Architecture and Construction Career Cluster focuses on designing, planning, managing, building, and maintaining the built environment. Principles of Architecture provides an overview to the various fields of architecture, interior design, and construction management.

Successful completion of the Construction Management and Inspection program of study will fulfill requirements of the Business and Industry Endorsement. Revised - July 2020

FOR ADDITIONAL INFORMATION ON THE ARCHITECTURE AND CONSTRUCTION CAREER CLUSTER:

<https://tea.texas.gov/cte>

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# Program of Study: Construction Technology AAS



<b>Level 1</b>	Principles of Construction Building Maintenance Technology I
<b>Level 2</b>	Construction Management I
<b>Level 3</b>	Construction Technology I
<b>Level 4</b>	Construction Management II Construction Technology II Practicum in Construction Technology
<b>Level 5</b>	Extended Practicum in Construction Management

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OSHA 30 Hour Construction	Construction Technology Level 1	Mechanical Engineering	Mechanical Engineering	Mechanical Engineering
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# Program of Study: Construction Science and Management AA to BS



Principles of Construction

## Level 1

Construction Management I

## Level 2

## Level 3

Practicum in Construction Technology

## Level 4

Extended Practicum in Construction Management

## Level 5

HIGH SCHOOL/INDUSTRY CERTIFICATION	CERTIFICATE / LICENSE*	ASSOCIATE'S DEGREE	BACHELOR'S DEGREE	MASTER'S/DOCTORAL PROFESSIONAL DEGREE
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## FOR ADDITIONAL INFORMATION ON THE ARCHITECTURE AND CONSTRUCTION CAREER CLUSTER:

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# Program of Study: Power Generation and Alternative Energy Level 1



<b>Level 1</b>	Principles of Construction Digital Communication for 21 <sup>st</sup> Century
<b>Level 2</b>	Foundations of Energy Construction Management I
<b>Level 3</b>	AC/DC Electronics
<b>Level 4</b>	Applied Mathematics for Technical Professionals Practicum in STEM
<b>Level 5</b>	

HIGH SCHOOL/ INDUSTRY CERTIFICATION	CERTIFICATE/ LICENSE*	ASSOCIATE'S DEGREE	BACHELOR'S DEGREE	MASTER'S/ DOCTORAL PROFESSIONAL DEGREE
NCCER Core Curriculum	Power Generation and Alternative Energy Level I or II	Power Generation and Alternative Energy	Systems Engineering	Systems Engineering
		Engineering, General	Engineering, General	Engineering, General

\*Includes Level I and Level II Certificates

Occupations	Median Wage	Annual Openings	% Growth
Wind Turbine Services Technician	\$51,334	387	108%
Solar Photovoltaic Installer	\$43,957	47	81%

WORK BASED LEARNING AND EXPANDED LEARNING OPPORTUNITIES	
<b>Exploration Activities:</b> Skills USA Science Club	<b>Work Based Learning Activities:</b> Research four renewable energy companies and compare them.

Additional industry-based certification information is available on the TEA CTE website. For more information on postsecondary options for this program of study, visit TXCTE.org.

The Renewable Energy program of study helps CTE learners discover to assemble, inspect, maintain, and repair different equipment required for renewable energy. It introduces students to solar photovoltaic equipment and wind turbines, the systems and processes used to maintain and manage these types of equipment, and helps students develop the skills needed to do so.



The Science, Technology, Engineering, and Mathematics (STEM) Career Cluster focuses on planning, managing, and providing, scientific research and professional and technical services, including laboratory and testing services, and research and development services.

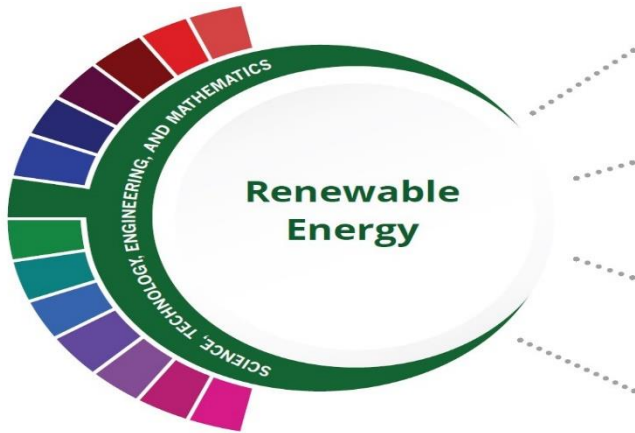
Successful completion of the Renewable Energy program of study will fulfill requirements of the Business and Industry or STEM endorsement if the Math and Science requirements are met. Revised - July 2020

FOR ADDITIONAL INFORMATION ON THE SCIENCE, TECHNOLOGY, ENGINEERING, AND MATHEMATICS CAREER CLUSTER:  
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# Program of Study: Power Generation and Alternative Energy Level 2



**Level 1**  
Principles of Construction  
Digital Communication for 21<sup>st</sup> Century

**Level 2**  
Foundations of Energy  
Construction Management I

**Level 3**  
AC/DC Electronics  
Scientific Research and Design

**Level 4**  
Applied Mathematics for Technical Professionals  
Practicum in STEM

**Level 5**

HIGH SCHOOL/ INDUSTRY CERTIFICATION	CERTIFICATE/ LICENSE*	ASSOCIATE'S DEGREE	BACHELOR'S DEGREE	MASTER'S/ DOCTORAL PROFESSIONAL DEGREE
NCCER Core Curriculum	Power Generation and Alternative Energy Level I or II	Power Generation and Alternative Energy	Systems Engineering	Systems Engineering
		Engineering, General	Engineering, General	Engineering, General

\*Includes Level I and Level II Certificates

Occupations	Median Wage	Annual Openings	% Growth
Wind Turbine Services Technician	\$51,334	387	108%
Solar Photovoltaic Installer	\$43,957	47	81%

## WORK BASED LEARNING AND EXPANDED LEARNING OPPORTUNITIES

Exploration Activities:	Work Based Learning Activities:
Skills USA Science Club	Research four renewable energy companies and compare them.

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The Renewable Energy program of study helps CTE learners discover to assemble, inspect, maintain, and repair different equipment required for renewable energy. It introduces students to solar photovoltaic equipment and wind turbines, the systems and processes used to maintain and manage these types of equipment, and helps students develop the skills needed to do so.



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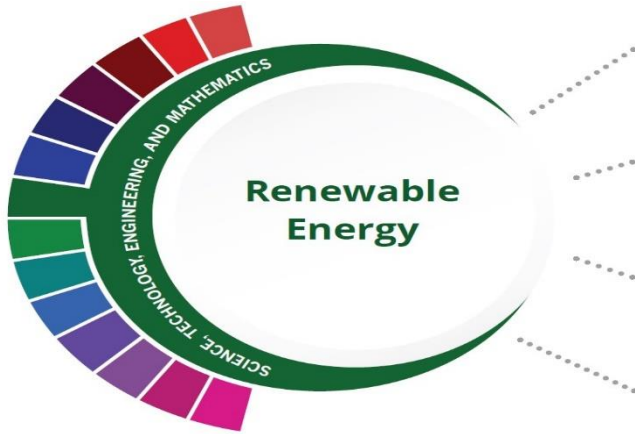
Successful completion of the Renewable Energy program of study will fulfill requirements of the Business and Industry or STEM endorsement if the Math and Science requirements are met. Revised - July 2020

FOR ADDITIONAL INFORMATION ON THE SCIENCE, TECHNOLOGY, ENGINEERING, AND MATHEMATICS CAREER CLUSTER:  
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# Program of Study: Power Generation and Alternative Energy AAS



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