



Architectural Technology (TOP 0201.00)

February 2024

Prepared by the South Central Coast Center of Excellence for
Labor Market Research

Program Recommendation

This report was compiled by the South Central Coast¹ Center of Excellence to provide regional labor market data for the program recommendation – Architectural Technology. This report can help determine whether there is demand in the local labor market that is not being met by the supply from programs of study that align with this occupation group.

Key Findings

- In 2022, there were 1,023 jobs for Architectural Technology-related occupations in the South Central Coast Region.
- This number is expected to increase by 4% through 2027.
- Projections show approximately 169 annual openings in the region. An average of 128 awards were conferred in relevant programs, indicating an undersupply.
- All three occupations included in this report have a typical entry-level education of an associate degree.

¹ The South Central Coast Region consists of San Luis Obispo County, Santa Barbara County, Ventura County, and the following cities from North Los Angeles County: Canyon Country, Castaic, Lake Hughes, Lancaster, Littlerock, Llano, Newhall, Palmdale, Pearblossom, Santa Clarita, Stevenson Ranch, and Valencia.

Occupation Codes and Descriptions

There are three occupations in the standard occupational classification (SOC) system that were identified as related to Architectural Technology for this analysis. The occupation titles and descriptions, as well as reported job titles, are included in Exhibit 1.

Exhibit 1 – Occupation, Description, and Sample Job Titles

SOC Code	Title	Description	Sample of Reported Job Titles
17-3011	Architectural and Civil Drafters	Prepare detailed drawings of architectural and structural features of buildings or drawings and topographical relief maps used in civil engineering projects, such as highways, bridges, and public works. Use knowledge of building materials, engineering practices, and mathematics to complete drawings.	Architectural Designer, Architectural Drafter, Architectural Draftsman, Civil Drafter, Computer-Aided Design Designer (CAD Designer), Computer-Aided Drafting and Design Drafter (CADD Drafter), Computer-Aided Drafting Designer (CAD Designer), Drafting Technician, Draftsman, Draftsperson
17-3019	Drafters, All Other	All drafters not listed separately.	N/A

SOC Code	Title	Description	Sample of Reported Job Titles
17-3026	Industrial Engineering Technologists and Technicians	Apply engineering theory and principles to problems of industrial layout or manufacturing production, usually under the direction of engineering staff. May perform time and motion studies on worker operations in a variety of industries for purposes such as establishing standard production rates or improving efficiency.	Business Process Analyst, Engineering Technician, Industrial Engineering Analyst, Industrial Engineering Technician, Manufacturing Coordinator, Manufacturing Technology Analyst, Quality Control Engineering Technician (QC Engineering Technician), Quality Management Coordinator, Quality Technician, Service Technician

Source: O*NET Online

Current and Future Employment

In the South Central Coast region, the number of jobs related to Architectural Technology occupations are expected to grow 4% through 2027. Industrial Engineering Technologists and Technicians are expected to grow the most, 9%.

Exhibit 2 – Five-Year Projections for Architectural Technology Occupations in the South Central Coast Region

SOC	Occupation	2022 Jobs	2027 Jobs	2022-2027 Change	2022-2027 % Change	Annual Openings
17-3011	Architectural and Civil Drafters	599	619	19	3%	81
17-3019	Drafters, All Other	170	166	(4)	(2%)	37
17-3026	Industrial Engineering Technologists and Technicians	254	278	24	9%	51
		1,023	1,063	39	4%	169

Source: Lightcast™ Analyst 2023

Earnings

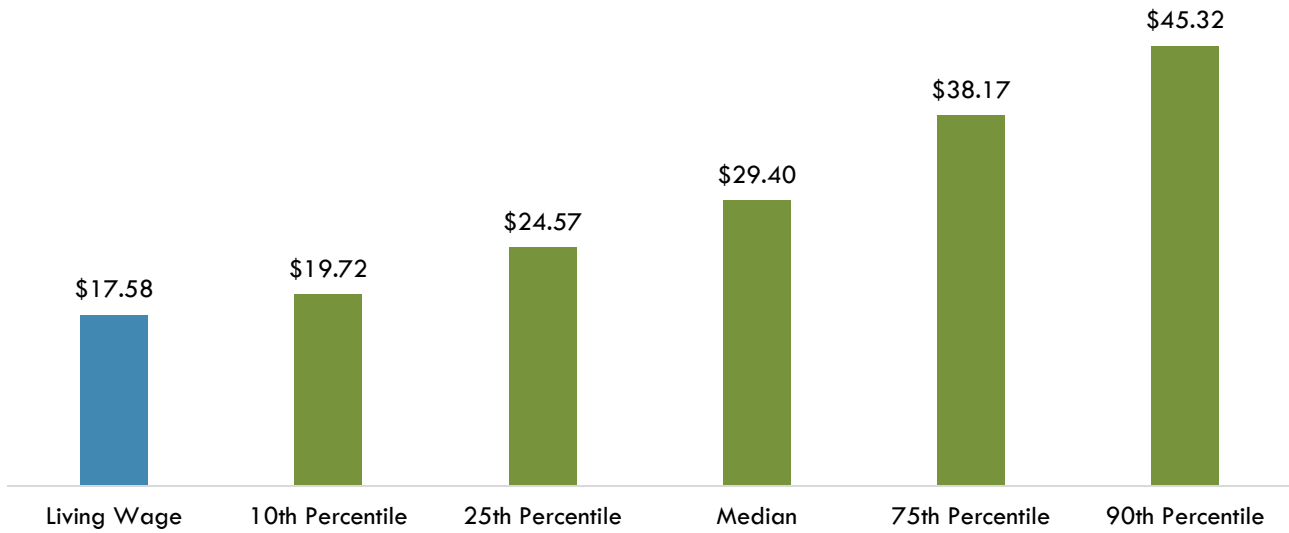
Exhibit 3 contains hourly wages and annual average earnings for these occupations. Entry-level hourly earnings are represented by the 25th percentile of wages, median hourly earnings are represented by the 50th percentile of wages, and experienced hourly earnings are represented by the 75th percentile of wages, demonstrating various levels of employment.

Exhibit 3 – Earnings for Architectural Technology Occupations in the South Central Coast Region

SOC	Occupation	Entry-Level Hourly Earnings	Median Hourly Earnings	Experienced Hourly Earnings
17-3011	Architectural and Civil Drafters	\$22.58	\$27.84	\$34.50
17-3019	Drafters, All Other	\$23.21	\$27.10	\$36.06
17-3026	Industrial Engineering Technologists and Technicians	\$27.91	\$33.27	\$43.95

Source: Lightcast™ Analyst 2023

Exhibit 3b – Earnings for Architectural Technology Occupations in the South Central Coast Region



Source: Family Needs Calculator (Living wage is based on Single Adult households with no children); Lightcast™ Analyst 2023

Employer Job Postings

In this research brief, real-time labor market information is used to provide a more nuanced view of the current job market, as it captures job advertisements for occupations relevant to the field of study. Employer job postings are consulted to understand who is looking for professionals in a given field, and what they are looking for in potential candidates. To identify job postings related to Architectural Technology the following standard occupational classifications were used:

17-3011	Architectural and Civil Drafters
17-3019	Drafters, All Other
17-3026	Industrial Engineering Technologists and Technicians

Top Occupations

In 2023, there were 870 employer postings for occupations related to Architectural Technology.

Exhibit 4 – Top Occupations by Job Postings

SOC Code	Occupation	Job Postings, Full Year 2023
17-3026	Industrial Engineering Technologists and Technicians	731
17-3019	Drafters, All Other	90
17-3011	Architectural and Civil Drafters	49
	Total	870

Source: Lightcast™ Analyst 2023

Top Titles

The top job titles for employers posting ads for jobs related to Architectural Technology are listed in Exhibit 5. Maintenance Technician is mentioned as the job title in 134 job postings.

Exhibit 5 – Job Titles

Title	Job Postings, Full Year 2023
Maintenance Technicians	134
Manufacturing Technicians	132
Maintenance Workers	48
Production Technicians	42
Production Machine Operators	21
CAD Designers	15
Maintenance Staff	13
Highway Maintenance Workers	12

Source: Lightcast™ Analyst 2023

Top Employers

Exhibit 6 lists the major employers hiring professionals in the Architectural Technology field. The top employer posting job ads was Northrop Grumman. The top worksite cities for these occupations were Thousand Oaks, Santa Barbara, Oxnard, and Ventura.

Exhibit 6 – Top Employers

Employer	Job Postings, Full Year 2023
Northrop Grumman	26
State of California	14
Parker Hannifin	13
Redwire Space	12
Raytheon Technologies	11
Goodyear	11
Dish	10
Clark County Beverage Management	10

Source: Lightcast™ Analyst 2023

Skills

The tables in Exhibit 7 list employers' most commonly requested skills in job postings related to Architectural Technology. Hand tools is the most sought-after specialized skill for employers. Communication was the most requested baseline skill. Microsoft Office was the most requested software and programming skill.

Exhibit 7 – Specialized Skills

Skills	Job Postings, Full Year 2023
Hand Tools	117
Machinery	78
Power Tool Operation	76
Computer-Aided Design	74
Manufacturing Processes	68
Manufacturing Operations	62
Tooling	61
Mechanical Assembly	58
Construction	57
Production Equipment	57

Source: Lightcast™ Analyst 2023

Exhibit 7b – Baseline Skills

Skills	Job Postings, Full Year 2023
Communication	184
Operations	155
Troubleshooting (Problem Solving)	145
Lifting Ability	139
Microsoft Office	94
Management	90
Detail Oriented	89
English Language	88
Problem Solving	88
Self-Motivation	80

Source: Lightcast™ Analyst 2023

Exhibit 7c – Software and Programming Skills

Skills	Job Postings, Full Year 2023
Microsoft Office	94
Microsoft Excel	58
AutoCAD	47
SolidWorks (CAD)	29
Microsoft Outlook	28
Microsoft Office 365	24
Autodesk	23
Microsoft PowerPoint	21
Microsoft Word	20
AutoCAD Civil 3D	20

Source: Lightcast™ Analyst 2023

Education and Training

Exhibit 8 shows the typical entry-level education requirement for occupations of interest, along with the typical on-the-job training needed to attain competency in the occupation.

Exhibit 8 – Education and Training Requirements

SOC	Occupation	Typical entry-level education	Typical on-the-job training
17-3011	Architectural and Civil Drafters	Associate degree	None
17-3019	Drafters, All Other	Associate degree	None
17-3026	Industrial Engineering Technologists and Technicians	Associate degree	None

Source: Bureau of Labor Statistics Employment Projections (Educational Attainment)

Regional Completions and Openings

Between 2019 and 2022, there were 128 awards conferred in the South Central Coast region aligned with programs related to the occupations in this report.

Exhibit 9 – Three-Year Average of Awards Conferred in the Region

TOP Code	Program	3-Year Average (2019-2022)
0201.00	Architecture and Architectural Technology	9
0924.00	Engineering Technology, General (requires Trigonometry)	5
0934.20	Industrial Electronics	25
0953.00	Drafting Technology	53
0953.10	Architectural Drafting	17
0956.00	Manufacturing and Industrial Technology	18
0999.00	Other Engineering and Related Industrial Technologies	1
	Average	128

Source: Datamart

CCC Awards

Exhibit 10 shows the average number of awards granted by community colleges within programs historically dedicated to training for the three occupations included in this report.

Exhibit 10 – CCC Awards in the South Central Coast Region, 2019-2022 Average

CCC Programs	3-Year Average
Allan Hancock	11
Antelope Valley	33
Canyons	23
Cuesta	9
Oxnard	2
Santa Barbara	6
Ventura	44

Source: DataMart, 2023

Sources

O*Net Online, Lightcast™ Analyst 2023, MIT Living Wage Calculator, Bureau of Labor Statistics (BLS) Education Attainment, California Community Colleges Chancellor's Office Management Information Systems (MIS) Data Mart, CTE LaunchBoard, Statewide CTE Outcomes Survey, Employment Development Department Unemployment Insurance Dataset

Notes

Data included in this analysis represent the labor market demand for relevant positions most closely related to Architectural Technology. Traditional labor market information was used to show current and projected employment based on data trends, as well as annual average awards granted by regional community colleges. Real-time labor market information captures job post advertisements for occupations relevant to the field of study and can signal demand and show what employers are looking for in potential employees, but is not a perfect measure of the quantity of open positions. All representations have been produced from primary research and/or secondary review of publicly and/or privately available data and/or research reports. The most recent data available at the time of the analysis was examined; however, data sets are updated regularly and may not be consistent with previous reports. Efforts have been made to qualify and validate the accuracy of the data and findings; however, neither the Centers of Excellence for Labor Market Research (COE), COE host district, nor California Community Colleges Chancellor's Office are responsible for the applications or decisions made by individuals and/or organizations based on this study or its recommendations.