

Arizona 2018 Classification of Instructional Programs (CIP), Ranked by Score, Statewide

<u>Classifications of Instructional Program (CIP)</u>			<u>Labor Market Data</u>			
Rank	Cip Code	CIP Title	Openings	ONET Score	Hourly Wage	Educ. Code
E	15.0000.00	Engineering Sciences				
E	41.0100.00	Bioscience				
1	46.0300.20	Residential Electrician/Electrical and Power Transmission	848	817	\$ 23.54	8
2	46.0300.00	Industrial Electrician/Electrical and Power Transmission	108	774	\$ 35.08	8
3	51.0900.30	Emergency Medical Services	180	883	\$ 17.66	7
4	51.0900.20	Respiratory Therapy Technician	4	819	\$ 25.08	6
5	51.0900.40	Surgical Technician	34	752	\$ 23.95	7
6	43.0100.00	Law, Public Safety and Security	910	793	\$ 24.37	8
7	52.0200.00	Business Administration, Management and Operations	1,119	762	\$ 25.01	8
8	43.0200.00	Fire Service	173	875	\$ 25.60	7
9	47.0600.20	Automotive Technologies	265	782	\$ 19.24	7
10	47.0600.40	Diesel Engine Repair	194	772	\$ 21.61	8
11	47.0600.30	Automotive Collision Repair	82	709	\$ 21.63	8
12	47.0600.50	Aircraft Mechanics	81	818	\$ 28.24	7
13	47.0300.00	Heavy/Industrial Equipment Maintenance Technologies	425	797	\$ 23.75	8
14	49.0100.00	Air Transportation	124	809	\$ 40.10	7
15	01.0100.00	Environmental Service Systems	106	793	\$ 22.48	8
16	47.0200.00	Heating, Ventilation and Air Conditioning	211	839	\$ 21.77	7
17	46.0400.30	Carpenters	647	780	\$ 21.70	8
18	01.0100.90	Agribusiness Systems	714	739	\$ 24.43	7
19	46.0400.20	Construction Technologies	2,657	744	\$ 18.57	8
20	01.0100.60	Power, Structural and Technical Systems	219	787	\$ 22.77	8
21	49.0200.00	Heavy Equipment Operations	2,656	729	\$ 19.43	7
22	52.1800.20	Professional Sales and Marketing	211	737	\$ 19.65	8
23	52.1800.30	Advertising and Public Relations	97	685	\$ 26.16	8
24	52.1800.40	Entertainment Marketing	102	741	\$ 33.43	8
25	52.1800.50	Entrepreneurship	15	561	\$ 46.88	8
26	51.3900.00	Nursing Services	886	744	\$ 18.12	7

Classifications of Instructional Program (CIP)			Labor Market Data			
Rank	Cip Code	CIP Title	Openings	ONET Score	Hourly Wage	Educ. Code
27	52.0900.00	Hospitality Management	84	769	\$ 27.17	8
28	51.0800.30	Laboratory Assisting	84	761	\$ 19.74	6
29	51.0808.00	Veterinary Assistant	115	763	\$ 14.40	6
30	51.0800.20	Pharmacy Technician	330	711	\$ 15.88	8
31	51.0800.40	Medical Imaging Support Services	44	755	\$ 20.49	8
32	51.0800.60	Medical Assisting Services	396	738	\$ 15.51	8
33	51.0800.50	Sports Medician and Rehabilitation Services	28	704	\$ 14.54	8
34	52.1900.20	Fashion Design and Merchandising	211	737	\$ 19.65	8.2
35	52.1900.20	Interior Design and Merchandising	102	741	\$ 33.43	8
36	48.0500.20	Automation/Robotics	112	806	\$ 19.45	8
37	48.0500.30	Precision Machining	269	729	\$ 19.59	8
38	48.0508.00	Welding Technologies	99	644	\$ 19.71	8
39	51.0600.00	Dental Assisting	257	717	\$ 18.03	7
40	01.0100.40	Animal Systems	13	839	\$ 29.69	8
41	01.0100.30	Plant Sciences	13	839	\$ 29.69	8
42	15.0300.00	Electronics Technologies	11	77	\$ 28.56	6
43	15.1200.20	Computer Maintenance	11	77	\$ 28.56	6
44	15.1200.40	Software Development	40	706	\$ 33.93	6
45	15.1200.30	Network Technologies	43	705	\$ 32.72	6
46	15.1200.50	WebPage Development	40	706	\$ 33.93	6
47	51.0707.00	Health Information Technology	1,887	697	\$ 19.76	8
48	52.0400.00	Business Operations Support and Assistant Services	9,930	667	\$ 16.08	8
49	12.0500.00	Culinary Arts	2,388	689	\$ 13.30	9.4
50	13.1210.00	Early Childhood Education	249	740	\$ 12.88	6
51	13.1200.00	Education Professions	963	647	\$ 11.88	7
52	52.0800.00	Financial Services	1,188	650	\$ 16.55	8
53	12.0400.00	Cosmetology and Related Personal Grooming Services	530	700	\$ 14.48	7.4
54	52.0300.00	Accounting and Related Services	564	624	\$ 19.59	7.3
55	51.3500.00	Theraputic Massage	171	654	\$ 22.52	7
56	01.0100.20	Food Products and Processing Processing	2	836	\$ 21.32	8

Classifications of Instructional Program (CIP)			Labor Market Data			
Rank	Cip Code	CIP Title	Openings	ONET Score	Hourly Wage	Educ. Code
57	15.1300.20	Architectural Drafting	22	719	\$ 25.45	6
58	15.1300.30	Electronics Drafting	25	680	\$ 28.33	6
59	15.1300.40	Mechanical Drafting	9	677	\$ 28.97	6
60	51.1500.00	Mental and Social Health Services and Allied Professions	70	729	\$ 14.32	7.3
61	46.0400.40	Cabinetmaking	151	713	\$ 13.36	8
62	10.0200.30	Graphic/Web Design	113	678	\$ 15.20	7.8
63	10.0200.20	Digital Printing	51	681	\$ 16.02	8
64	10.0200.00	Music & Audio Productions	38	743	\$ 21.28	7
65	10.0200.40	Digital Communications	8	723	\$ 18.78	8
66	10.0200.50	Digital Photography	8	723	\$ 18.78	8
67	10.0200.60	Animation	8	723	\$ 18.78	8
68	10.0200.90	Film & TV	8	723	\$ 18.78	8
69	50.0500.20	Technical Theatre	1	537	\$ 21.64	6

Sources	
1	Openings and wage data are produced by the Arizona Department of Administration, Office of Employment & Population Statistics. Wages are from the 2015 OES survey, released in May 2016. Openings are from the 2014-2024 Occupational Projections.
2	O-Net database is from an earlier version (O*NET® 16.0): http://www.onetcenter.org/database.html
3	ONET score is summation of all ONET descriptors.
4	Education Codes: see section 3 below
5	Crosswalk between SOC and CIP: http://www.bls.gov/soc/soccrosswalks.htm
Calculation method	
1	Hourly wages were calculated by dividing annual wages by 2080.
2	All scores were first calculated by occupation using the SOC (Standard Occupational Code).
3	The field of occupations was restricted to those whose educational code was between 6 and 11. The lowest educational codes have the numbers (see below).
4	Scores by CIP (Classification of Instructional Programs) were calculated by taking an openings-weighted average of the occupations in the CIP. If a SOC occurred in more than one CIP, the openings for that SOC were evenly divided among the CIP's.
5	Percentiles were calculated for each of the data items: openings, wages, and O*NET scores. In case of a tie, the same percentile was assigned to all CIP's involved in the tie.
6	The following formula determined the score for each CIP: $(4 \times \text{Openings Percentile} + 2 \times \text{Wage Percentile} + 3 \times \text{ONET Percentile}) / 9$
7	Occupations with ONET scores below the 8.2% percentile were excluded
BLS Education Codes	
2	Doctoral degree (Not used for this project)
3	Master's degree (Not used for this project)
4	Bachelor's or higher degree, plus work experience (Not used for this project)
5	Bachelor Degree (Not used for this project)
6	Associate Degree
7	Post-secondary vocational training
8	Work experience in related occupation
9	Long-term on-the-job training
10	Moderate-term on-the-job training
11	Short-term on-the-job training
Questions and Comments	

Direct questions or comments to Rachael Tashbook, Rachael.Tashbook@oeo.az.gov, 602-364-4030, or Doug Walls, Doug.Walls@oeo.az.gov, 60-771-1258, at the Office of Economic Opportunity

Explanations of Each Column

Column		Explanation
A	Rank	This is the rank of the CIP (Classification of Instructional Programs) by score (column 4). Tie scores get tie ranks. Sometimes scores appear to be tie, but, if carried out to more decimal places, are not. Such CIPs are not assigned tie
B	CIP Code	This is the CIP (Classification of Instructional Programs) code of the training program. For more information see: http://www.xwalkcenter.org/index.php
C	CIP Title	The title of the training program. http://www.xwalkcenter.org/index.php
D	Score	The score is a weighted average of columns E through G. The score is equal to $[(4 \text{ times OPEN}) + (2 \text{ times WAGE}) + (3 \text{ times ONET})] / 9$
E-G	Percentiles	These 3 columns convert the data in columns I through K to percentiles. Tie scores produce tie percentiles.
I	Openings	The number of openings expected per year for the occupations within this CIP. If an occupation is contained in more than one CIP, its openings are distributed evenly among those CIPs.
J	Hourly Wage	The average of the wages of the occupations contained in this CIP, weighted by the number of openings in each
K	ONET Score	A measure of the skills and knowledge required for the occupations within this CIP, weighted by the number of openings in each occupation. The cutoff for the ONET score is set at the 8.1 percentile, to assure that certain occupations that require minimal training, like landscapers and groundskeepers, are not included in the list.
L	Educational Level	The various educational levels are described in section 3 of the Notes1 section. Higher numbers indicate lower levels of education.