

WASHINGTON-ARLINGTON-ALEXANDRIA, DC-VA-MD-WV METROPOLITAN STATISTICAL AREA STEM occupational projections, 2014 and projected 2024<sup>1</sup>

Soccode	Occupational Title	Employment		Change 2014-2024		Average Annual Openings			Annual	Typical Education	Work Experience	Typical OJT needed to
		2014	2024	Numeric	Percent	Replacement	Growth	Total	Median Wage <sup>2</sup>	Needed for Entry	in a related occp.	attain competency
11-3021	Computer and Information Systems Managers	14,689	15,779	1,090	7.4	109	173	282	\$153,980	Bachelor's degree	5 years or more	None
11-9041	Architectural and Engineering Managers	7,895	7,851	-44	-0.6	0	242	242	\$144,830	Bachelor's degree	5 years or more	None
11-9121	Natural Sciences Managers	2,688	2,503	-185	-6.9	0	56	56	\$132,360	Bachelor's degree	5 years or more	None
15-1111	Computer and Information Research Scientists	3,013	3,417	404	13.4	40	39	79	\$125,200	PhD or prof. degree	None	None
15-1121	Computer Systems Analysts	26,907	33,998	7,091	26.4	709	346	1,055	\$99,110	Bachelor's degree	None	None
15-1122	Information Security Analysts	5,386	6,843	1,457	27.1	146	69	215	\$106,770	Bachelor's degree	Less than 5 years	None
15-1131	Computer Programmers	6,530	5,756	-774	-11.9	0	161	161	\$96,240	Bachelor's degree	None	None
15-1132	Software Developers, Applications	16,992	20,938	3,946	23.2	395	243	638	\$110,110	Bachelor's degree	None	None
15-1133	Software Developers, Systems Software	16,043	19,065	3,022	18.8	302	229	531	\$113,900	Bachelor's degree	None	None
15-1134	Web Developers	6,351	8,003	1,652	26.0	165	82	247	\$83,060	Associate's degree	None	None
15-1141	Database Administrators	5,575	6,505	930	16.7	93	120	213	\$100,640	Bachelor's degree	Less than 5 years	None
15-1142	Network and Computer Systems Administrators	18,977	22,487	3,510	18.5	351	244	595	\$96,740	Bachelor's degree	None	None
15-1143	Computer Network Architects	9,504	10,957	1,453	15.3	145	122	267	\$111,950	Bachelor's degree	5 years or more	None
15-1151	Computer User Support Specialists	21,339	25,524	4,185	19.6	418	275	693	\$58,150	Some college, no degree	None	None
15-1152	Computer Network Support Specialists	5,268	5,942	674	12.8	67	68	135	\$72,400	Associate's degree	None	None
15-1199	Computer Occupations, All Other	43,094	43,914	820	1.9	82	554	636	\$112,020	Bachelor's degree	None	None
15-2011	Actuaries	577	556	-21	-3.6	0	17	17	\$128,790	Bachelor's degree	None	Long-term OJT
15-2021	Mathematicians	267	324	57	21.3	6	5	11	\$137,550	Master's degree	None	None
15-2031	Operations Research Analysts	4,963	6,107	1,144	23.1	114	88	202	\$107,310	Bachelor's degree	None	None
15-2041	Statisticians	3,423	4,155	732	21.4	73	60	133	\$99,910	Master's degree	None	None
15-2091	Mathematical Technicians	14	11	-3	-21.4	0	0	0	N/A	Bachelor's degree	None	None
15-2099	Mathematical Science Occupations, All Other	162	143	-19	-11.7	0	3	3	\$63,710	Bachelor's degree	None	None
17-1011	Architects, Except Landscape and Naval	14,666	15,441	775	5.3	78	241	319	\$77,060	Bachelor's degree	None	Internship/residency
17-1012	Landscape Architects	314	317	3	1.0	0	5	5	\$61,200	Bachelor's degree	None	Internship/residency
17-1021	Cartographers and Photogrammetrists	216	270	54	25.0	5	7	12	\$86,220	Bachelor's degree	None	None
17-1022	Surveyors	550	531	-19	-3.5	0	17	17	\$58,770	Bachelor's degree	Less than 5 years	None
17-2011	Aerospace Engineers	1,591	1,615	24	1.5	2	46	48	\$138,870	Bachelor's degree	None	None
17-2031	Biomedical Engineers	142	171	29	20.4	3	4	7	\$90,830	Bachelor's degree	None	None
17-2041	Chemical Engineers	267	242	-25	-9.4	0	7	7	\$110,120	Bachelor's degree	None	None
17-2051	Civil Engineers	7,395	7,911	516	7.0	52	218	270	\$87,090	Bachelor's degree	None	None
17-2061	Computer Hardware Engineers	2,344	2,712	368	15.7	37	48	85	\$117,610	Bachelor's degree	None	None
17-2071	Electrical Engineers	2,438	2,594	156	6.4	16	54	70	\$108,040	Bachelor's degree	None	None
17-2072	Electronics Engineers, Except Computer	1,786	1,694	-92	-5.2	0	39	39	\$118,060	Bachelor's degree	None	None
17-2081	Environmental Engineers	1,542	1,660	118	7.7	12	44	56	\$94,100	Bachelor's degree	None	None
17-2111	Health and Safety Engineers, Except Mining Safety Engineers and Inspectors	1,457	1,468	11	0.8	1	43	44	\$99,920	Bachelor's degree	None	None
17-2112	Industrial Engineers	991	1,090	99	10.0	10	29	39	\$87,990	Bachelor's degree	None	None
17-2121	Marine Engineers and Naval Architects	1,385	1,453	68	4.9	7	36	43	\$117,080	Bachelor's degree	None	None
17-2131	Materials Engineers	767	784	17	2.2	2	27	29	\$115,340	Bachelor's degree	None	None
17-2141	Mechanical Engineers	2,872	3,069	197	6.9	20	91	111	\$104,640	Bachelor's degree	None	None
17-2151	Mining and Geological Engineers, Including Mining Safety Engineers	23	23	0	0.0	0	1	1	\$57,960	Bachelor's degree	None	None
17-2161	Nuclear Engineers	274	253	-21	-7.7	0	7	7	\$107,620	Bachelor's degree	None	None
17-2171	Petroleum Engineers	42	37	-5	-11.9	0	1	1	\$122,660	Bachelor's degree	None	None
17-2199	Engineers, All Other	8,121	7,538	-583	-7.2	0	163	163	\$132,350	Bachelor's degree	None	None
17-3011	Architectural and Civil Drafters	2,438	2,313	-125	-5.1	0	29	29	\$50,250	Associate's degree	None	None
17-3012	Electrical and Electronics Drafters	301	316	15	5.0	2	4	6	\$68,480	Associate's degree	None	None
17-3013	Mechanical Drafters	222	204	-18	-8.1	0	3	3	\$58,630	Associate's degree	None	None
17-3019	Drafters, All Other	18	17	-1	-5.6	0	0	0	\$52,670	Associate's degree	None	None
17-3021	Aerospace Engineering and Operations Technicians	11	13	2	18.2	0	0	0	\$62,810	Associate's degree	None	None
17-3022	Civil Engineering Technicians	1,678	1,721	43	2.6	4	41	45	\$42,140	Associate's degree	None	None
17-3023	Electrical and Electronics Engineering Technicians	1,666	1,697	31	1.9	3	41	44	\$68,790	Associate's degree	None	None
17-3024	Electro-Mechanical Technicians	114	116	2	1.8	0	3	3	\$53,320	Associate's degree	None	None
17-3025	Environmental Engineering Technicians	138	147	9	6.5	1	3	4	\$58,280	Associate's degree	None	None
17-3027	Mechanical Engineering Technicians	447	483	36	8.1	4	11	15	\$56,970	Associate's degree	None	None
17-3029	Engineering Technicians, Except Drafters, All Other	980	851	-129	-13.2	0	24	24	\$82,840	Associate's degree	None	None

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17-3031	Surveying and Mapping Technicians	350	313	-37	-10.6	0	4	4	\$48,770	HS or EQ	None	Moderate-term OJT
19-1012	Food Scientists and Technologists	75	76	1	1.3	0	3	3	\$77,030	Bachelor's degree	None	None
19-1013	Soil and Plant Scientists	197	187	-10	-5.1	0	7	7	\$82,840	Bachelor's degree	None	None
19-1021	Biochemists and Biophysicists	84	91	7	8.3	1	2	3	\$85,350	PhD or prof. degree	None	None
19-1022	Microbiologists	159	151	-8	-5.0	0	4	4	\$92,760	Bachelor's degree	None	None
19-1023	Zoologists and Wildlife Biologists	292	278	-14	-4.8	0	8	8	\$93,060	Bachelor's degree	None	None
19-1029	Biological Scientists, All Other	717	655	-62	-8.6	0	19	19	\$93,570	Bachelor's degree	None	None
19-1031	Conservation Scientists	549	595	46	8.4	5	24	29	\$75,430	Bachelor's degree	None	None
19-1032	Foresters	183	197	14	7.7	1	8	9	N/A	Bachelor's degree	None	None
19-1041	Epidemiologists	310	351	41	13.2	4	10	14	\$92,030	Master's degree	None	None
19-1042	Medical Scientists, Except Epidemiologists	2,944	3,299	355	12.1	36	91	127	\$105,960	PhD or prof. degree	None	None
19-1099	Life Scientists, All Other	63	68	5	7.9	0	2	2	\$98,340	Bachelor's degree	None	None
19-2011	Astronomers	186	165	-21	-11.3	0	4	4	\$138,870	PhD or prof. degree	None	None
19-2012	Physicists	1,102	997	-105	-9.5	0	21	21	\$131,840	PhD or prof. degree	None	None
19-2021	Atmospheric and Space Scientists	212	231	19	9.0	2	4	6	\$110,170	Bachelor's degree	None	None
19-2031	Chemists	966	929	-37	-3.8	0	21	21	\$118,050	Bachelor's degree	None	None
19-2032	Materials Scientists	21	19	-2	-9.5	0	0	0	\$99,820	Bachelor's degree	None	None
19-2041	Environmental Scientists and Specialists, Including Health	5,313	5,333	20	0.4	2	164	166	\$99,920	Bachelor's degree	None	None
19-2042	Geoscientists, Except Hydrologists and Geographers	172	161	-11	-6.4	0	5	5	\$115,710	Bachelor's degree	None	None
19-2043	Hydrologists	245	258	13	5.3	1	8	9	\$92,490	Bachelor's degree	None	None
19-2099	Physical Scientists, All Other	1,651	1,476	-175	-10.6	0	16	16	\$132,050	Bachelor's degree	None	None
19-4011	Agricultural and Food Science Technicians	61	66	5	8.2	0	2	2	\$46,250	Associate's degree	None	Moderate-term OJT
19-4021	Biological Technicians	1,328	1,353	25	1.9	2	37	39	\$51,330	Bachelor's degree	None	None
19-4031	Chemical Technicians	542	534	-8	-1.5	0	16	16	\$49,200	Associate's degree	None	Moderate-term OJT
19-4091	Environmental Science and Protection Technicians, Including Health	549	542	-7	-1.3	0	23	23	\$54,880	Associate's degree	None	None
19-4092	Forensic Science Technicians	1,047	1,288	241	23.0	24	44	68	\$71,390	Bachelor's degree	None	Moderate-term OJT
19-4093	Forest and Conservation Technicians	131	137	6	4.6	1	6	7	\$46,470	Associate's degree	None	None
19-4099	Life, Physical, and Social Science Technicians, All Other	1,001	996	-5	-0.5	0	42	42	\$55,700	Associate's degree	None	None
25-1021	Computer Science Teachers, Postsecondary	234	254	20	8.5	2	4	6	\$79,160	PhD or prof. degree	None	None
25-1022	Mathematical Science Teachers, Postsecondary	316	360	44	13.9	4	6	10	\$69,540	PhD or prof. degree	None	None
25-1031	Architecture Teachers, Postsecondary	399	435	36	9.0	4	7	11	\$66,750	PhD or prof. degree	None	None
25-1032	Engineering Teachers, Postsecondary	233	261	28	12.0	3	4	7	\$94,250	PhD or prof. degree	None	None
25-1042	Biological Science Teachers, Postsecondary	353	401	48	13.6	5	6	11	\$70,530	PhD or prof. degree	None	None
25-1052	Chemistry Teachers, Postsecondary	159	181	22	13.8	2	3	5	\$68,870	PhD or prof. degree	None	None
25-1053	Environmental Science Teachers, Postsecondary	33	35	2	6.1	0	1	1	\$83,380	PhD or prof. degree	None	None
25-1054	Physics Teachers, Postsecondary	175	199	24	13.7	2	3	5	\$93,700	PhD or prof. degree	None	None
41-4011	Sales Representatives, Wholesale and Manufacturing, Technical and Scientific Products	5,446	5,584	138	2.5	14	112	126	\$101,870	Bachelor's degree	None	Moderate-term OJT
41-9031	Sales Engineers	1,939	1,870	-69	-3.6	0	50	50	\$125,370	Bachelor's degree	None	Moderate-term OJT

Notes:<sup>1</sup>Washington-Arlington-Alexandria, DC-VA-MD-WV Metropolitan Statistical Area Long-Term Occupational Projections, 2014 - 2024

<sup>2</sup>Bureau of Labor Statistics, Occupational Employment Statistics (OES), May 2015

<sup>3</sup>Unless other wise specified, occupations typically require neither work experience in a related occupation nor on-the-job training to obtain competency.

N/A - not available

Source: DC Department of Employment Services, Office of Labor Market Research and Information