

**Appendix Table 1. Detailed STEM occupations and Standard Occupational Classification (SOC) codes**

Occupation	SOC code	Occupation	SOC code
<i>Computer and math occupations</i>			
• Computer scientists and systems analysts	15-10XX	• Network systems and data communications analysts	15-1081
• Computer programmers	15-1021	• Actuaries	15-2011
• Computer software engineers	15-1030	• Mathematicians	15-2021
• Computer support specialists	15-1041	• Operations research analysts	15-2031
• Database administrators	15-1061	• Statisticians	15-2041
• Network and computer systems administrators	15-1071	• Miscellaneous mathematical science occupations	15-2090
<i>Engineering and surveying occupations</i>			
• Surveyors, cartographers, and photogrammetrists	17-1020	• Materials engineers	17-2131
• Aerospace engineers	17-2011	• Mechanical engineers	17-2141
• Agricultural engineers	17-2021	• Mining and geological engineers, including mining safety engineers	17-2151
• Biomedical engineers	17-2031	• Nuclear engineers	17-2161
• Chemical engineers	17-2041	• Petroleum engineers	17-2171
• Civil engineers	17-2051	• Engineers, all other	17-2199
• Computer hardware engineers	17-2061	• Drafters	17-3010
• Electrical and electronic engineers	17-2070	• Engineering technicians, except drafters	17-3020
• Environmental engineers	17-2081	• Surveying and mapping technicians	17-3031
• Industrial engineers, including health and safety	17-2110	• Sales engineers	41-9031
• Marine engineers and naval architects	17-2121		
<i>Physical and life sciences occupations</i>			
• Agricultural and food scientists	19-1010	• Physical scientists, all other	19-2099
• Biological scientists	19-1020	• Agricultural and food science technicians	19-4011
• Conservation scientists and foresters	19-1030	• Biological technicians	19-4021
• Medical scientists	19-1040	• Chemical technicians	19-4031
• Astronomers and physicists	19-2010	• Geological and petroleum technicians	19-4041
• Atmospheric and space scientists	19-2021	• Nuclear technicians	19-4051
• Chemists and materials scientists	19-2030	• Other life, physical, and social science technicians	19-40XX
• Environmental scientists and geoscientists	19-2040		
<i>STEM managerial occupations</i>			
• Computer and information systems managers	11-3021	• Natural sciences managers	11-9121
• Engineering managers	11-9041		

**Appendix Table 2. Detailed STEM undergraduate majors**

	<i>Computer majors</i>		
<ul style="list-style-type: none"> <li>• Computer and information systems</li> <li>• Computer programming and data processing</li> </ul>	<ul style="list-style-type: none"> <li>• Computer science</li> <li>• Information sciences</li> </ul>	<ul style="list-style-type: none"> <li>• Computer administration management and security</li> <li>• Computer networking and telecommunications</li> </ul>	
	<i>Math majors</i>		
<ul style="list-style-type: none"> <li>• Mathematics</li> <li>• Applied mathematics</li> </ul>	<ul style="list-style-type: none"> <li>• Statistics and decision science</li> </ul>	<ul style="list-style-type: none"> <li>• Mathematics and computer science</li> </ul>	
	<i>Engineering majors</i>		
<ul style="list-style-type: none"> <li>• General engineering</li> <li>• Aerospace engineering</li> <li>• Biological engineering</li> <li>• Architectural engineering</li> <li>• Biomedical engineering</li> <li>• Chemical engineering</li> <li>• Civil engineering</li> <li>• Computer engineering</li> <li>• Electrical engineering</li> <li>• Engineering mechanics physics and science</li> </ul>	<ul style="list-style-type: none"> <li>• Environmental engineering</li> <li>• Geological and geophysical engineering</li> <li>• Industrial and manufacturing engineering</li> <li>• Materials engineering and materials science</li> <li>• Mechanical engineering</li> <li>• Metallurgical engineering</li> <li>• Mining and mineral engineering</li> <li>• Naval architecture and marine engineering</li> <li>• Nuclear engineering</li> </ul>	<ul style="list-style-type: none"> <li>• Petroleum engineering</li> <li>• Miscellaneous engineering</li> <li>• Engineering technologies</li> <li>• Engineering and industrial management</li> <li>• Electrical engineering technology</li> <li>• Industrial production technologies</li> <li>• Mechanical engineering related technologies</li> <li>• Miscellaneous engineering technologies</li> <li>• Military technologies</li> </ul>	
	<i>Physical and life sciences majors</i>		
<ul style="list-style-type: none"> <li>• Animal sciences</li> <li>• Food science</li> <li>• Plant science and agronomy</li> <li>• Soil science</li> <li>• Environmental science</li> <li>• Biology</li> <li>• Biochemical sciences</li> <li>• Botany</li> <li>• Molecular biology</li> <li>• Ecology</li> </ul>	<ul style="list-style-type: none"> <li>• Genetics</li> <li>• Microbiology</li> <li>• Pharmacology</li> <li>• Physiology</li> <li>• Zoology</li> <li>• Miscellaneous biology</li> <li>• Nutrition sciences</li> <li>• Neuroscience</li> <li>• Cognitive science and biopsychology</li> </ul>	<ul style="list-style-type: none"> <li>• Physical sciences</li> <li>• Astronomy and astrophysics</li> <li>• Atmospheric sciences and meteorology</li> <li>• Chemistry</li> <li>• Geology and earth science</li> <li>• Geosciences</li> <li>• Oceanography</li> <li>• Physics</li> <li>• Nuclear, industrial radiology, and biological technologies</li> </ul>	