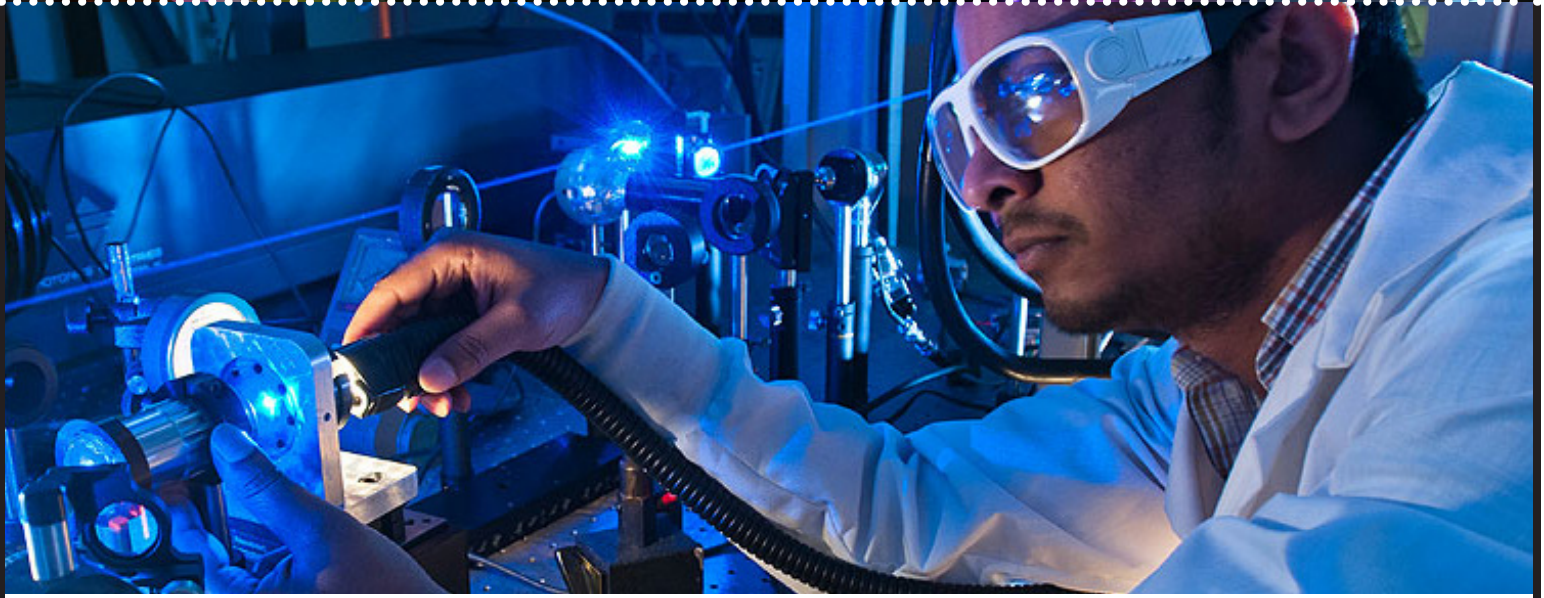


# STEM

## Occupations in Virginia



### Science

Atmospheric Scientist; Biochemist; Chemist; Conservation Scientist; Geneticist; Hydrologist; Life Scientist; Microbiologist; Physicist



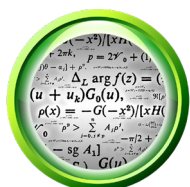
### Technology

Business Intelligence Developer; Cyber Security Analyst; Computer Game Designer; Network Administrator; User Interface Developer



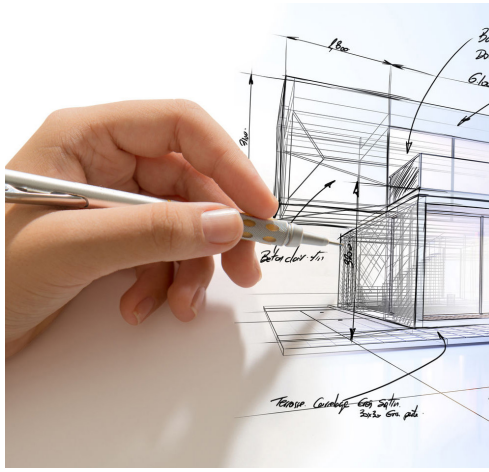
### Engineering

Aerospace Engineer; Architectural Engineer; Chemical Engineer; Electrical Engineer; Industrial Engineer; Nanosystems Engineers; Robotics Engineer



### Mathematics

Biostatistician; Cartographer; Economist; Mathematician; Statistician; Survey Researcher; Transportation Planner



## Architecture and Engineering Occupations

These workers design and develop structures, products, and systems and collect information for mapping and other purposes.

Overall employment in architecture and engineering occupations is projected to grow 4 percent from 2021 to 2031, about as fast as the average for all occupations; this increase is expected to result in about 91,300 new jobs over the decade. In addition to new jobs from growth, opportunities arise from the need to replace workers who leave their occupations permanently. About 200,900 openings each year, on average, are projected to come from growth and replacement needs.

The median annual wage for this group was \$79,840 in May 2021, which was higher than the median annual wage for all occupations of \$45,760.



## Computer and Mathematics Occupations

**Computer:** These workers create or support computer applications, systems, and networks.

Overall employment in computer and information technology occupations is projected to grow 15 percent from 2021 to 2031, much faster than the average for all occupations; this increase is expected to result in about 682,800 new jobs over the decade. In addition to new jobs from growth, opportunities arise from the need to replace workers who leave their occupations permanently. About 418,500 openings each year, on average, are projected to come from growth and replacement needs.

The median annual wage for this group was \$97,430 in May 2021, which was higher than the median annual wage for all occupations of \$45,760.

**Math:** Workers in this group use arithmetic and apply advanced techniques to make calculations, analyze data, and solve problems.

Overall employment in math occupations is projected to grow 29 percent from 2021 to 2031, much faster than the average for all occupations; this increase is expected to result in about 82,000 new jobs over the decade. In addition to new jobs from growth, opportunities arise from the need to replace workers who leave their occupations permanently. About 30,600 openings each year, on average, are projected to come from growth and replacement needs.

The median annual wage for this group was \$98,680 in May 2021, which was higher than the median annual wage for all occupations of \$45,760.



## Health

Workers in these occupations help clients maintain and improve wellbeing.

Overall employment in healthcare occupations is projected to grow 13 percent from 2021 to 2031, much faster than the average for all occupations; this increase is expected to result in about 2 million new jobs over the decade. In addition to new jobs from growth, opportunities arise from the need to replace workers who leave their occupations permanently. About 1.9 million openings each year, on average, are projected to come from growth and replacement needs.

The median annual wage for healthcare practitioners and technical occupations (such as registered nurses, physicians and surgeons, and dental hygienists) was \$75,040 in May 2021, which was higher than the median annual wage for all occupations of \$45,760; healthcare support occupations (such as home health and personal care aides, occupational therapy assistants, and medical transcriptionists) had a median annual wage of \$29,880 in May 2021, which was lower than the median annual wage for all occupations.



## Life, Physical, and Social Science Occupations

These workers use scientific research to help solve problems and expand knowledge.

Overall employment in life, physical, and social science occupations is projected to grow 7 percent from 2021 to 2031, about as fast as the average for all occupations; this increase is expected to result in about 98,700 new jobs over the decade. In addition to new jobs from growth, opportunities arise from the need to replace workers who leave their occupations permanently. About 147,900 openings each year, on average, are projected to come from growth and replacement needs.

The median annual wage for this group was \$72,740 in May 2021, which was higher than the median annual wage for all occupations of \$45,760.



## Management Occupations

Workers in these occupations establish plans and policies, direct business activities, and oversee people, products, and services.

Overall employment in management occupations is projected to grow 8 percent from 2021 to 2031, faster than the average for all occupations; this increase is expected to result in about 883,900 new jobs over the decade. In addition to new jobs from growth, opportunities arise from the need to replace workers who leave their occupations permanently. About 1.1 million openings each year, on average, are projected to come from growth and replacement needs.

The median annual wage for this group was \$102,450 in May 2021, which was the highest of all the major occupational groups and more than the median annual wage for all occupations of \$45,760.



## Education, Training, and Library

These workers share information through instruction and distribution.

Overall employment in education, training, and library occupations is projected to grow 7 percent from 2021 to 2031, about as fast as the average for all occupations; this increase is expected to result in about 658,200 new jobs over the decade. In addition to new jobs from growth, opportunities arise from the need to replace workers who leave their occupations permanently. About 929,900 openings each year, on average, are projected to come from growth and replacement needs.

The median annual wage for this group was \$57,220 in May 2021, which was higher than the median annual wage for all occupations of \$45,760.

*Note: the above information is U.S. projection and wage data*

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### Sources and More Info:

Occupational Outlook Handbook: <https://www.bls.gov/ooh/>

O\*Net: <https://www.onetonline.org/>

Best STEM Jobs, *U.S. News*: <https://money.usnews.com/careers/best-jobs/rankings/best-stem-jobs>

Find STEM jobs: <https://www.stemjobs.com/>

# Top 5 High Growth STEM Occupations in Virginia to 2030

## by Major Occupational Group

### Architecture and Engineering (Total Projected Job Growth - 5,483)

Occupation	2030 Projected Job Growth	2021 Annual Median Wage	Minimum Education
Civil Engineers	1,353	\$84,800	Bachelor's degree
Industrial Engineers	915	\$96,580	Bachelor's degree
Electrical Engineers	511	\$101,280	Bachelor's degree
Mechanical Engineers	500	\$95,580	Bachelor's degree
Electrical and Electronics Engineering Technicians	345	\$76,600	Associate's degree

### Computer and Mathematical (Total Projected Job Growth - 41,389)

Occupation	2030 Projected Job Growth	2021 Annual Median Wage	Minimum Education
Information Security Analysts	6,014	\$126,230	Bachelor's degree
Computer Occupations, All Other	2,494	\$113,360	Bachelor's degree
Computer Systems Analysts	2,200	\$100,380	Bachelor's degree
Computer User Support Specialists	2,181	\$57,630	Some college, no degree
Operations Research Analysts	1,952	\$118,570	Bachelor's degree

### Healthcare Practitioners and Technical (Total Projected Job Growth - 27,176)

Occupation	2030 Projected Job Growth	2021 Annual Median Wage	Minimum Education
Registered Nurses	5,556	\$76,900	Bachelor's degree
Nurse Practitioners	3,393	\$102,860	Master's degree
Licensed Practical and Licensed Vocational Nurses	2,300	\$47,210	Postsecondary non-degree award
Pharmacy Technicians	2,073	\$36,450	High school diploma or equivalent
Physical Therapists	1,286	\$94,260	Doctoral or professional degree

### Life, Physical, and Social Science (Total Projected Job Growth - 1,881)

Occupation	2030 Projected Job Growth	2021 Annual Median Wage	Minimum Education
Chemists	206	\$86,520	Bachelor's degree
Environmental Scientists and Specialists, Including Health	203	\$74,300	Bachelor's degree
Chemical Technicians	192	\$47,270	Associate's degree
Medical Scientists, Except Epidemiologists	152	\$82,360	Doctoral or professional degree
Economists	143	\$110,590	Master's degree

# High Growth STEM-Related Occupations in Virginia to 2030

## by Major Occupational Group

### Management (Total Projected Job Growth - 23,856)

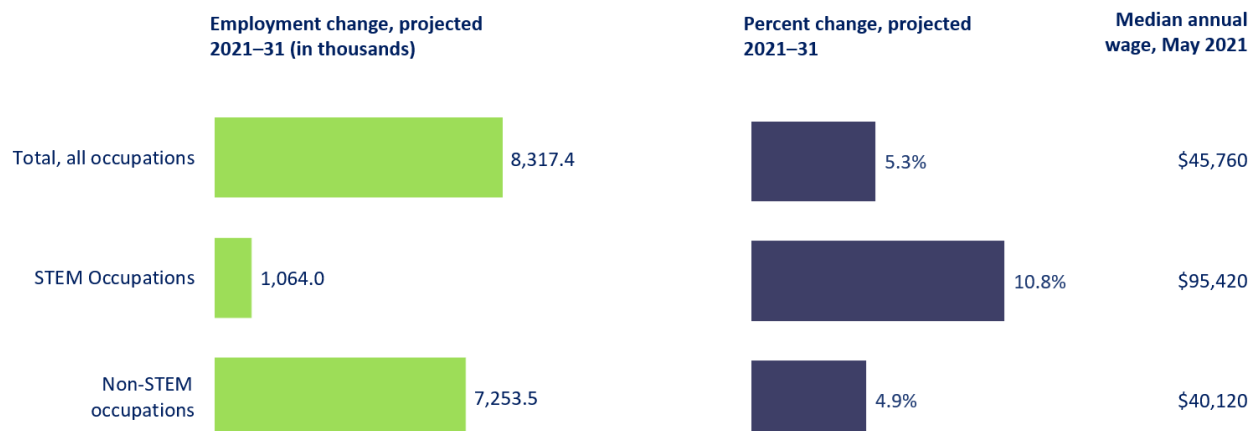
Occupation	2030 Projected Job Growth	2021 Annual Median Wage	Minimum Education
Medical and Health Services Managers	2,604	\$102,960	Bachelor's degree
Computer and Information Systems Managers	1,685	\$164,920.	Bachelor's degree
Architectural and Engineering Managers	276	\$143,120	Bachelor's degree
Natural Sciences Managers	34	\$134,780	Bachelor's degree

### Education, Training, and Library (Total Projected Job Growth - 29,922)

Occupation	2030 Projected Job Growth	2021 Annual Median Wage	Minimum Education
Health Specialties Teachers, Postsecondary	1,368	Not Available	Doctoral or professional degree
Nursing Instructors and Teachers, Postsecondary	374	\$77,630	Doctoral or professional degree
Biological Science Teachers, Postsecondary	354	\$81,370	Doctoral or professional degree
Engineering Teachers, Postsecondary	190	\$105,250	Doctoral or professional degree
Computer Science Teachers, Postsecondary	175	\$77,450	Doctoral or professional degree

Sources: Virginia Employment Commission, Occupational Employment Projections, 2020-2030;  
Virginia Employment Commission, Occupational Employment Statistics (OES) Survey;  
O\*NET™ - The Occupational Information Network. O\*NET is a registered trademark of the US Department of Labor/Employment and Training Administration.

## STEM Occupations are Projected to Grow Much Faster than Average



Note: Wage data are from the Occupational Employment and Wage Statistics program, U.S. Bureau of Labor Statistics.