STEM and Aerospace In New Mexico

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We will discuss:

STEM Careers and Pathways

Aerospace Industry in NM

NM STEM Enrollment Data

NM Labor Market Information

CTE and Perkins

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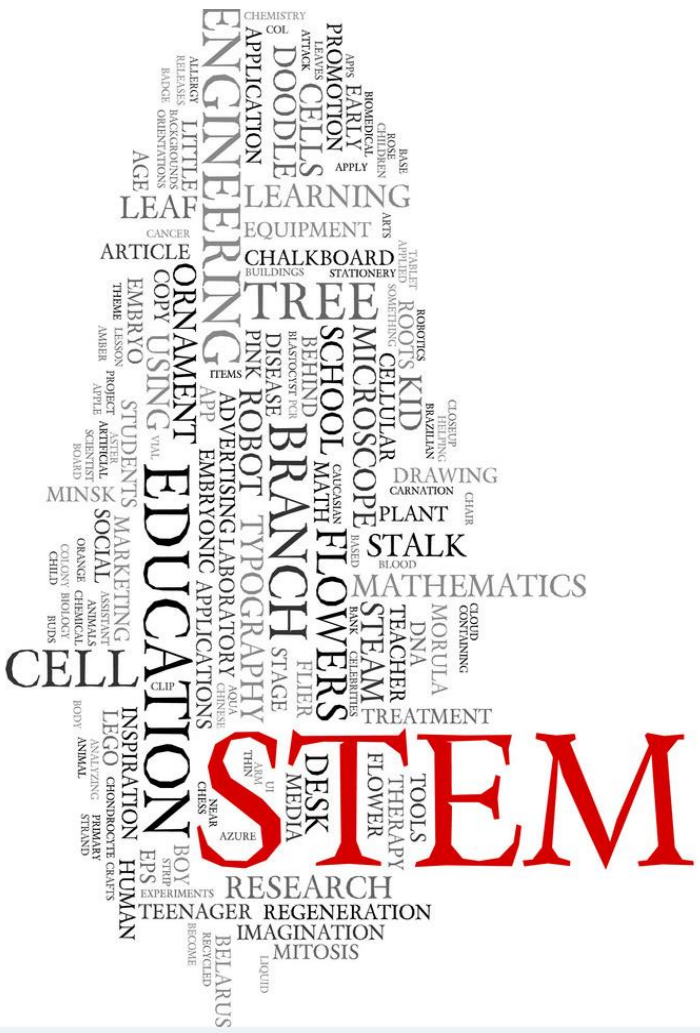
Science
Technology
Engineering
Math



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Build New Mexico

Space start-ups have attracted more than $13.3 billion of investment.

Home to the nation's first inland Spaceport and most experienced FAA approved UAS test center

Air Force Research Labs, including the Space Vehicles Directorate and the Air Force Operational Test and Evaluation Center (AFOTEC) and our federal laboratories and research facilities in the state

STEM and Aerospace Industry in NM

52,202 New Mexicans are employed in STEM occupations.

$74,500 average earnings

Currently the demand in New Mexico is concentrated in computer occupations and engineers.

Photo Credit: Pathways2Careers

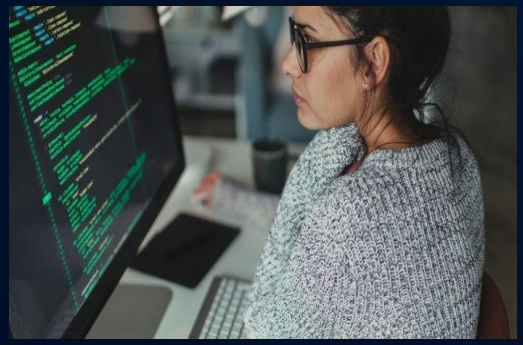

Photo Credit: Pathways2Careers

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STEM Occupations

- Mathematical science occupations
- Life Scientists
- Physical Scientists
- Social scientists and related occupations
- Life, physical, and social science technicians*

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Aerospace: Why New Mexico?

- Ideal Flying weather
- Superior launch opportunity
- Land!
- Flight Testing
- Research
- Transportation Infrastructure

Photo Credit: Virgin Galactic

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Aerospace Giants in New Mexico

- Spaceport America
- Test Facilities- NMSU, White Sands Missile Range
- USAF Presence
- Very Large Array (VLA) Datil, NM
- Sandia National Labs

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Degree Programs and Certifications

- CNM offers three certificates/degrees under Aviation Technology:
- Airframe Maintenance Technician, Certificate of Completion
- Power plant Maintenance Technician, Certificate of Completion
- Aviation Maintenance Technology, Associate of Applied Science

- **<u>ENMU Roswell</u> offers both an associate's degree and a Certificate of Completion in Aviation Maintenance Technology**

- UNM School of Engineering offers a degree in Aerospace Engineering and is currently offering classes in the following fields:
- Dynamics & Controls
- Fluids
- Manufacturing Engineering Program
- Plasma & Space Weather
- Space Communications
- Structures

STEM LMI for New Mexico

Occupation - Cluster	Annual Openings	Median Wages	Projected New Jobs	Growth Rate	Pathway	Job Zone/ Education
Mathematical Technicians - Science, Technology, Engineering and Mathematics	***	***	***	***	Science and Mathematics	4
Agricultural Engineers - Science, Technology, Engineering and Mathematics	***	***	***	***	Engineering and Technology	4
Chemical Engineers - Science, Technology, Engineering and Mathematics	***	$116,160	***	***	Engineering and Technology	4
Industrial Engineering Technicians - Science, Technology, Engineering and Mathematics	36	$56,240	***	-11.60%	Engineering and Technology	3
Electro-Mechanical Technicians - Science, Technology, Engineering and Mathematics	7	$70,980	-4	-1.40%	Engineering and Technology	3

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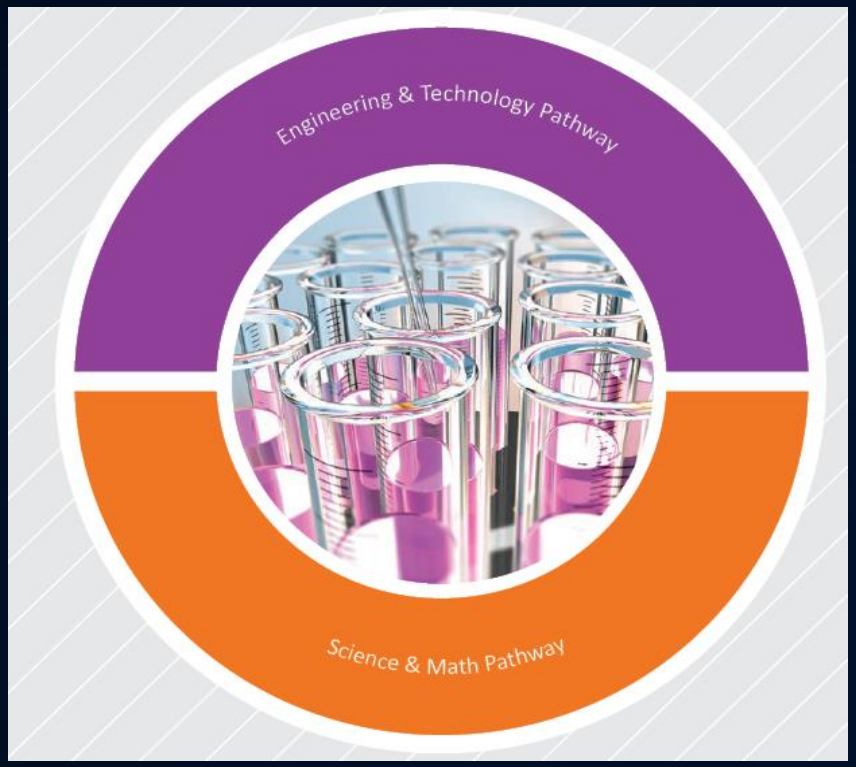
STEM PATHWAYS



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Recommended Course Sequence for STEM Pathways

Program of Study Course Sequence[2]				
	9th Grade	10th Grade	11th Grade	12th Grade
Engineering & Technology Pathway	1626 Emergent Technologies	1783 Scientific Technology	0452 Electronics - General	0963 Energy and Power
Engineering, a Project Lead the Way (PLTW) Program	1615 Introduction to Engineering Design	1617 Principles of Engineering 1714 Biology Specific Topics	1619 Civil Engineering and Architecture 1733 AP Physics	1620 Engineering Design and Development 1735 AP Physics B
Innovations in Science and Engineering Program, a SREB Advanced Career Program	1670 Nature of Science and Technology	1671 Core Applications of Science and Technology	1672 Impacts of Science and Technology	1673 Creativity and Innovations
Energy and Power, a SREB Advanced Career Program	0694 Energy and Power Foundations	0965 Energy Transmission and Distribution	0966 Electronics and Control Systems	0967 Advanced Science and Engineered Systems
Science & Mathematics Pathway	1626 Emergent Technologies	1783 Scientific Technology	A course should be chosen with a postsecondary institution's aligned POS.	A course should be chosen with a postsecondary institution's aligned POS.

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CTSO

TSA

TECHNOLOGY STUDENT ASSOCIATION

Why STEM?

Outside of high paying jobs, why is STEM so important?

Photo Credit: Today file photo

Photo Credit: Appian.com

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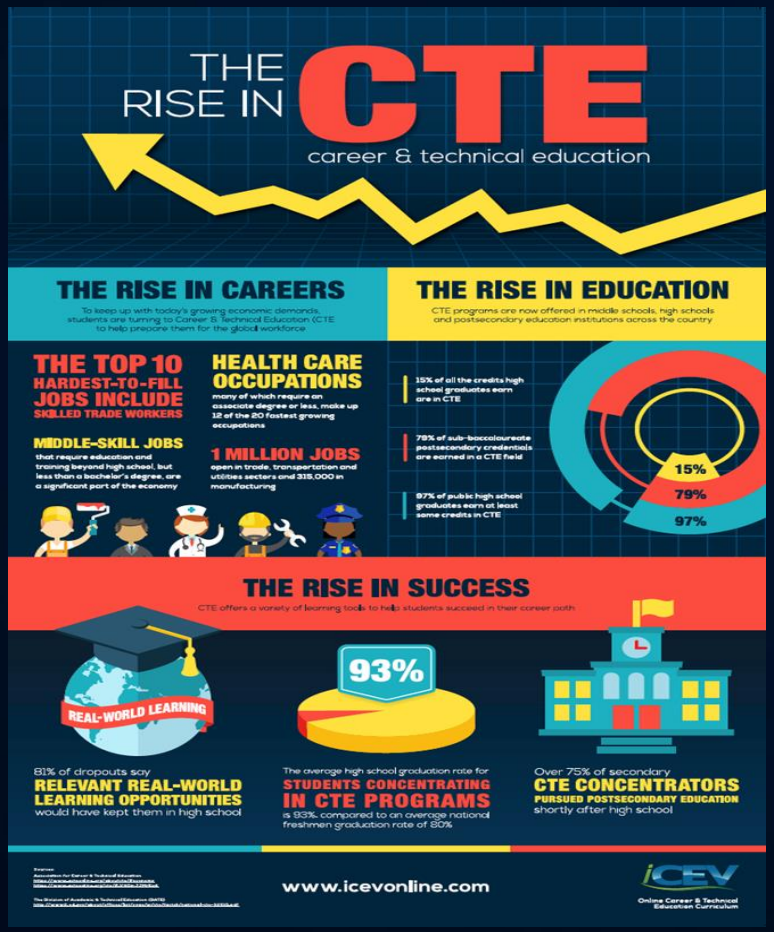
Perkins V
Strengthening Career and Technical Education for the 21st Century Act



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Discussion:

Making STEM classes accessible to students in rural America

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Thank you!

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