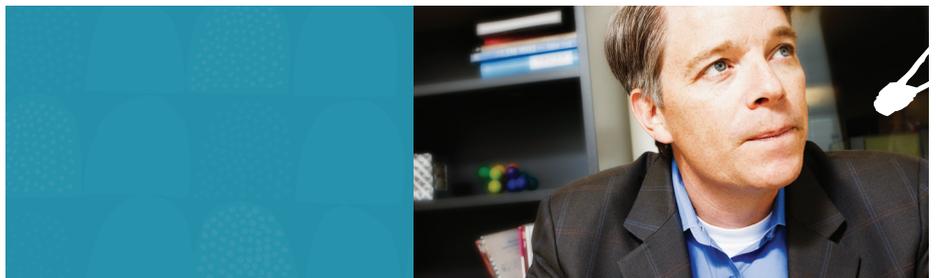


STEM CURRICULUM AND SOLUTIONS

Courses, Resources, and Support to
Prepare Your Students for Their Future





Helping schools and districts strengthen STEM education

Without a doubt, it's a national priority.

Science, Technology, Engineering, and Mathematics (STEM) education is key to America's leadership in the 21st century. Of 30 occupations expected to grow the fastest over the next decade, almost all will require some background in STEM.* Yet in 2013, only 44 percent of high school graduates were ready for math in college and only 36 percent were ready in science—according to ACT, a research firm that focuses on education and workforce development.

With all of the pressing challenges you face, how will you be able to best prepare your students for the future?

Delivering the Focused STEM Resources You Need

Read on to learn more about how we can support your STEM program through our:

- Extensive course catalog
- Special programs and activities
- Engaging technology components
- Support for online and blended learning models
- State-certified teachers
- Edulink online community
- Professional development
- Consulting program

* Source: U.S. Bureau of Labor Statistics

140 STEM Courses and Titles

Fuel Education’s extensive course catalog offers many STEM courses and titles for all of your students—whether they are seeking new challenges, pursuing their interests, or exploring career options in a STEM field. Not only can students choose from advanced courses such as Earth, Physical, and Life Science in middle school, but they can also choose from Honors or AP® courses such as Algebra II, Calculus, or Statistics in high school—to name

a few. Plus, there are more than 50 STEM career-building electives, such as C++ Programming, Forensic Science, Green Design and Technology, and Engineering Design. In addition, you can choose the curriculum that is the best fit for your online learning program, whether full-time online, blended, or in-class instruction. Read on to review our complete list of STEM courses and titles.

Grades 6–12

- Full- and part-time programs
- Blended learning
- In-class instruction
- 43 STEM courses

FuelEd Online Courses

FuelEd includes more than 170 high-quality, standards-based online courses covering all core subjects, and includes:

- Three academic levels
- Credit recovery in math and science
- High school electives

Courses feature a rich multimedia format that may include components such as graphics, avatars, animated simulations, and videos to help keep students engaged and motivated to learn. Tutorials help illustrate complex concepts more clearly. The FuelEd curriculum’s unique avatars help establish connections between topics and “real world” applications. Courses can be hosted on all major learning management platforms.

Grades K–12

- Full-time programs
- Blended learning
- 64 STEM courses

K¹² Curriculum

The award-winning curriculum from K¹², our content partner, has more than 240 courses covering all core subjects, and includes:

- Four academic levels in high school, plus Foundations courses, and credit recovery courses
- 43 electives for high school

The engaging K¹² curriculum has animations, game simulations, avatars, online discussion groups, video lectures, online debates, and more. For grades K–8, hands-on materials are tightly integrated with online lessons. Plus, a growing number of K¹² courses feature the latest “adaptive” technology that intelligently adjusts to the student’s skill level.

Grades 1–12

- Full- and part-time programs
- In-class instruction
- 45 STEM titles

FuelEd Anywhere Learning System (ALS)

ALS is for your students who need highly individualized instruction: acceleration for advanced students; remediation for struggling students; or Response to Intervention (RTI) programs. The comprehensive ALS system contains more than 5,500 lessons and over 200,000 pages of highly targeted content—all tightly aligned with Common Core State Standards.

ALS provides:

- Individualized pre-tests to assess student mastery of learning objectives
- Prescribed content to address deficiencies or areas for acceleration, including content from previous or higher grades
- The ability to select individual lessons according to student need, and to blend lessons with in-classroom instruction

The Fuel Education Difference

The Latest Technologies

We use technology to engage students and encourage interactivity as they progress through STEM courses.



Virtual Labs

Many science and math courses now include interactive virtual labs. Highly engaging online science experiments enable students to demonstrate the scientific method, test a hypothesis, witness various outcomes, and examine sources of error. Such science virtual labs can be used to reinforce concepts learned in hands-on labs or, in certain situations, act as a replacement for the hands-on lab. Math virtual labs provide individual and interactive activities in which students observe, record, and enter data using applied concepts and provide additional application of math principles.

Lab Kits

Many of our science courses also offer offline science labs. We ship to each student all of the materials necessary for conducting wet labs, including chemicals, microscopes, petri dishes, lab manuals, and other materials.

Online Books

All our high school textbooks, reference guides, and lab manuals are now also offered as online books, or eBooks. Some eBooks are also available for grades K-8.

Mobile Apps

Students can download new mobile applications for the iPhone and iPod Touch, most available for free on iTunes. These apps include K¹² Money, which lets students solve math problems using currency; K¹² Periodic Table, which students can use to reinforce course concepts; as well as K¹² Algebra I Study and Review.

Multimedia

FuelEd curricula includes a variety of innovative, multimedia elements such as virtual field trips, game simulation, avatars, concept maps, threaded online group discussions for high school students, video lectures, online debates, Discovery® streaming videos, and more.

STEM Programs and Clubs

These programs help students master fundamental skills, as well as inspire young minds to explore a wide variety of subjects.



Math+ for K-5

These research-based courses use pioneering adaptive technology to help students understand important mathematical concepts as well as acquire critical-thinking and problem-solving capabilities. As students work through each course, it presents additional practice work when and where they need it. Through online games, colorful graphics, and animation, concepts come to life—while challenge problems, ongoing practice, and review ensure thorough comprehension.

STEM Clubs for K-12

A broad range of clubs are available to students enrolled in FuelEd Full-Time School Comprehensive Programs who want to pursue STEM subjects. Students have opportunities to enrich their understanding of the world around them, and can also connect with others who are passionate about topics that spark their curiosity. Popular clubs include:

- K-2 Plant Science
- K-3 Science Explorers
- K-5 Caring for Animals
- K-6 Spiders, Reptiles, and Snails—Oh My!
- 2-6 Living Green
- 3-5 Farm Animals
- 3-5 Amateur Astronomy
- 3-8 Jr. Park Ranger
- 4-6 Computer Club
- 4-8 Science Explorers (one club for each grade)
- 4-8 Mathematical Mysteries of the Universe!
- 6-8 Brain Teasers
- 6-8 Oceanography
- 6-8 Endangered Animals
- 6-12 Glogster
- 6-12 Stock Market Club
- 7-12 Computer
- 7-12 Google Tools
- 7-12 Living Green
- 9-10 Science Exploration
- 9-12 Animal Rescue
- 9-12 4-H
- 9-12 Astronomy Club
- 9-12 Graphic Design
- 11-12 Science Exploration

STEM Support

We provide the resources needed to ensure the success of your school or district's online program.

Variety of STEM Online Learning Models

FuelEd has served more than 2,000 districts, providing curricula and support for many different programs from full-time online and blended learning, to in-class instruction. No matter which model your school or district prefers, FuelEd provides the STEM curricula and support to best meet your needs.

STEM Professional Development

We've trained more than 5,000 teachers in online instruction. As you build your STEM online program, FuelEd can provide your teachers with comprehensive training for online instruction methods, enabling them to use the latest educational technologies, expand their skill sets and meet individual students' needs. Through our New Teacher Induction (year-long) or National Professional Development (ongoing) programs, your teachers can learn how to become effective online and potentially earn continuing education credits.

STEM Certified Teachers

FuelEd also provides access to hundreds of experienced, highly qualified, state-certified educators to support your STEM program. For any course you choose to offer, we can help you quickly fill a temporary position or provide a permanent online teaching

solution. Your students will receive high-quality instruction through online classroom sessions; one-to-one feedback; and assistance by phone, chat, or e-mail.

STEM Networking through Edulink

This online community connects you with hundreds of educators who are also focused on building their STEM curriculum. This forum enables you to ask questions and share best practices with your peers as well as with FuelEd STEM teachers and staff.

STEM Consulting Services

You will receive direct access to our most seasoned experts in online education who can share their best practices from supporting more than 2,000 districts with innovative online and blended learning solutions in all 50 states and the District of Columbia.



Arne Duncan
U.S. Secretary
of Education

“These jobs in the STEM fields are absolutely critical drivers of economic growth. And STEM education must be reinvigorated to propel prosperity.”

Fuel Education STEM Course List

Math

Course/Title	FuelEd Curriculum ¹	K ¹² Curriculum ²	FuelEd Anywhere Learning System	Course/Title	FuelEd Curriculum ¹	K ¹² Curriculum ²	FuelEd Anywhere Learning System
K-8				HIGH SCHOOL, CONTINUED			
Math+ K (Blue)		●		Geometry	●	●	
Math+ 1 (Green)		●		Geometry IA			●
Math+ 2 (Orange)		●		Geometry IB			●
Math+ 3 (Purple)		●		Algebra II	● CR	●	
Math+ 4 (Red)		●		Algebra II, Part 1			●
Math+ 5 (Yellow)		●		Algebra II, Part 2			●
Math 6	●			Pre-Calculus	●		
Fundamentals of Geometry and Algebra		●		Trigonometry	●		●
Math 7	●			Pre-Calculus/Trigonometry		●	●
Pre-Algebra		●		Probability and Statistics		●	
Pre-Algebra IA			●	Calculus	●	●	
Pre-Algebra IB			●	Calculus I			●
Math 8	●			Calculus II			●
Algebra		●		AP Calculus AB	●	●	
Mathematics I*			●	AP Calculus BC	●	●	
Mathematics II*			●	AP Statistics	●	●	
Mathematics III*			●	Consumer Math	●	●	
Mathematics IV*			●	Personal Finance	●	●	●
Mathematics V*			●	Integrated Math	●	●	
Mathematics VI*			●	Accounting	●	●	
Mathematics VII*			●				
HIGH SCHOOL							
Math Foundations I		●					
Math Foundations IA			●				
Math Foundations IB			●				
Math Foundations II		●					
Math Foundations IIA			●				
Math Foundations IIB			●				
Arithmetic			●				
Elementary Algebra			●				
College Algebra			●				
Pre-Algebra	●	●					
Algebra I	● CR	●					
Algebra IA			●				
Algebra IB			●				
Algebra I, A Function Approach, Part 1			●				
Algebra I, A Function Approach, Part 2			●				

Science

Course/Title	FuelEd Curriculum ¹	K ¹² Curriculum ²	FuelEd Anywhere Learning System
K-8			
Science K		●	
Science 1		●	
Science 2		●	
Science 3		●	
Science 4		●	
Science 5		●	
Science 6	●		
Science 7	●		
Science 8	●		
The Sciences I			●
The Sciences II			●
The Sciences III			●
The Sciences IV			●
The Sciences V			●
The Sciences VI			●
The Sciences VII			●
The Sciences VIII			●
Earth Science		●	
Advanced Earth Science		●	
Life Science		●	
Advanced Life Science		●	
Physical Science		●	
Advanced Physical Science		●	
HIGH SCHOOL			
Physical Science	● CR	●	●
Earth Science	● CR	●	
Earth and Space Science			●
Biology	● CR	●	
Comprehensive Biology			●
Chemistry	●	●	
Chemistry IA			●
Chemistry II			●
Physics	●	●	●
AP [®] Biology	●	●	
AP [®] Chemistry	●	●	
AP [®] Physics B	●	●	
AP [®] Environmental Science	●	●	
Environmental Science	●	●	
Forensic Science	●	●	
Anthropology			●

Technology, Engineering, and Computer Science

Course/Title	FuelEd Curriculum ¹	K ¹² Curriculum ²	FuelEd Anywhere Learning System
HIGH SCHOOL			
Computer Literacy	●	●	
Image Design and Editing		●	
Web Design	●	●	
C++ Programming		●	
Programming I—VB.Net		●	
VB.Net Programming	●		
Programming II—Java		●	
Java Programming	●		
Game Design	●	●	
3D Art I—Modeling	●	●	
3D Art II—Animation	●	●	
Audio Engineering		●	
Green Design and Technology		●	
Digital Arts I		●	
Digital Arts II		●	
Computer Science		●	
Engineering Design/CAD		●	
AP Computer Science A	●	●	
Computer Fundamentals	●		
Digital Photography	●		
Extended Electives			
Criminology	●		
Great Minds in Science	●		
Veterinary Science	●		

*Also available in Spanish for English Language Learners

CR = Credit Recovery

¹FuelEd courses are available in up to three academic levels—Foundations, Standard, and AP

²K¹² courses are available in up to four academic levels—Core, Comprehensive, Honors, and AP

Course lists are subject to change.

Fuel Education partners with schools and districts to fuel personalized learning and transform the education experience inside and outside the classroom.

We provide innovative solutions for pre-K through 12th grade that empower districts to implement and grow successful online and blended learning programs. Our open, easy-to-use Personalized Learning Platform simplifies administration and enables teachers to customize courses using their own content, FuelEd content, third-party partner content, as well as open educational resources. We offer the industry's largest catalog of flexible digital curriculum, certified instruction, professional development, and educational services tailored to district and student needs. FuelEd has helped more than 2,000 school districts to improve student outcomes, better serve diverse student populations, and expand educational opportunities by leveraging the new power of technology-enabled learning.

fueleducation[™]
the new power of learning

CALL 866.912.8588
WEB getfueled.com