

**IPAA/PESA**  
**Energy Education**  
**Center**





**IPAA**  
INDEPENDENT PETROLEUM  
ASSOCIATION OF AMERICA



**PESA**  
PETROLEUM EQUIPMENT  
& SERVICES ASSOCIATION



# IPAA/PESA Energy Education Center



The **Independent Petroleum Association of America (IPAA)** and the **Petroleum Equipment & Services Association (PESA)** are committed to educational outreach through the Houston-based **IPAA/PESA Energy Education Center**. With the support of the **IPAA/PESA Education Advisory Board** and critical corporate and individual sponsorships, the **IPAA/PESA Energy Education Center** is

achieving an unprecedented level of success preparing the **next generation** of talented professionals who will lead the oil and gas industry forward.

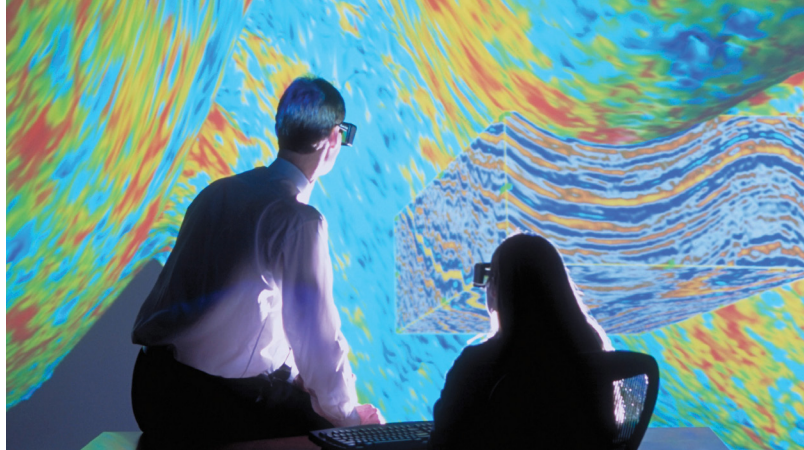
Over the next decade, the number of jobs in science, technology, engineering, and mathematics, or STEM, industries including oil & natural gas is expected to grow 50 percent faster than in non-STEM industries. Filling these jobs is both a need for our future economy and an amazing opportunity for students, but we must first empower students with the knowledge of STEM career paths within their reach.

To meet this need, the **IPAA/PESA Energy Education Center** has embarked on a **new digital STEM Career Exploration program** designed for middle school students. Research shows that grades 6-9 are particularly critical years, and that entering high school with an interest in STEM is the most important determinant of graduating with an interest in STEM.

Learners engage with interactive content and familiar environments to show them STEM in their world. Virtual career cards are integrated within the digital learning experience that expose students to STEM roles relevant to their interests.

Please join us in our continuing efforts to support this industry-changing partnership with education, funded solely by the charitable contributions of organizations and individuals to the **IPAA Educational Foundation**, a 501(c)(3) organization.

Barry Russell  
IPAA President & CEO



## SNAPSHOT ► IPAA/PESA PETROLEUM ACADEMIES

- **3,200** graduates
- **1,500** enrolled for the 2019-20 school year
- **Two-thirds** of students are economically disadvantaged
- **41%** female participation
- Significant impact on **1<sup>st</sup> generation** college participation
- **\$1,000,000** in college scholarships awarded
- **750** student Oil & Gas industry externships awarded

[www.ipaa.org/education](http://www.ipaa.org/education)

The **IPAA/PESA Energy Education Center** supports energy education outreach by providing oil and gas industry education in four broad areas:

- 1 Award-winning **High School Petroleum Academies**
- 2 **NEW!** Middle School STEM Career Exploration Initiative
- 3 Live and/or Customized, In-house **Oil & Gas Courses\***
- 4 Industry-focused **eLearning Online Courses\***



Top: PESA President, Leslie Beyer with IPAA/PESA Petroleum Academy alumni and students.

Left: IPAA/PESA Energy Education Center 2019 Teacher of the Year, Brandi Fisher, Houston Middle School, Hobbs, NM, with PESA President, Leslie Beyer and IPAA President and CEO, Barry Russell.

*\*proceeds from these courses benefit the Energy Education Center*

## SUPPORT Industry Education Today!

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## Inspire young minds

80% of jobs this decade will require STEM skills, but only 40% of middle school students envision themselves with a STEM career.



## Experiential learning

IPAA and PESA are seeking organizations to play a leading role in helping students explore STEM careers in a fun, impactful and innovative way.



## Design your future

Empowering students with the knowledge of the incredible opportunities available in the oil and natural gas industry with a STEM education.

## OUR PROGRAMS

Since 2006, the **IPAA/PESA Energy Education Center** has inspired high school students in enhanced STEM curriculum through its five engineering, geoscience and leadership academies at high schools in the Houston and Fort Worth Independent School Districts. We are now proud to launch a digital STEM initiative at the Middle School level.

### Middle School STEM Career Exploration Initiative | Power Your Future

#### FEATURES

- Students go through interactive simulations to see **'STEM in their world'** and are introduced to inspiring careers
- Scalable to support national distribution
- 35 career cards feature key skills, educational requirements, average salary data
- Introduces students to real-life STEM careers
- Valuable, supplementary resource material for teachers provided

#### LAUNCH

- Multi-school/state/nationwide **digital** initiative to inspire future STEM generations
- Launched in the Permian
- 22 schools in 9 school districts in 2 states
- 1,250 students in 2018-19 school year

### High School Petroleum Academies

Providing high school students with a multidisciplinary, advanced academic learning experience in science, mathematics and the emerging technology concepts needed to pursue professional training and degrees in engineering, geology, geophysics and global energy management in the oil and natural gas industry.

#### KEY COMPONENTS

- Guest Speaker Lecture Series
- Industry and College Visits
- Industry-related Competitions
- Student Camps
- Externship Program
- Dale Carnegie Training
- Teacher Training
- Teacher of the Year Award
- Community Service
- Energy Clubs
- Scholarships for College
- Alumni Group
- IPAA Emerging Leaders Group

#### IPAA/PESA PETROLEUM ACADEMIES AT:

Energy Institute High School  
Charles H. Milby High School  
Southwest High School  
Westside High School  
Young Women's College Preparatory Academy

#### FOUNDING SPONSOR

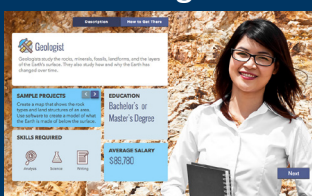


#### MAJOR SPONSORS

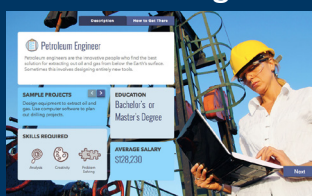


## Sample STEM Career Exploration Cards

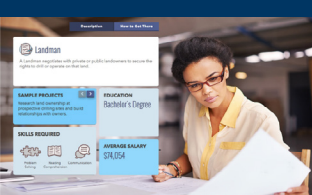
### Geologist



### Petroleum Engineer



### Landman



### Power Your Future

- **CAREER DESCRIPTION**  
Includes sections on **Sample Projects**, **Skills Required**, **Education**, and **Average Salary**
- **HOW TO GET THERE**  
Includes sections on **Starting Today**, **Classes to Take**, and **Down the Road**

### Geologist

Geologists study the rocks, minerals, fossils, landforms, and the layers of the Earth's surface. They also study how and why the Earth has changed over time.

#### SAMPLE PROJECTS

Create a map that shows the rock types and land structures of an area. Use software to create a model of what the Earth is made of below the surface.

#### EDUCATION

Bachelor's or Master's Degree

#### SKILLS REQUIRED



**AVERAGE SALARY**  
\$89,780

#### STARTING TODAY

Create a map that shows the rock types and land structures of an area. Use software to create a model of what the Earth is made of below the surface.

#### CLASSES TO TAKE

- Geology
- Chemistry
- Statistics

#### DOWN THE ROAD

Volunteer at a local organization or nature center that studies the land in your area.

**EDUCATION** is important in **EVERY** stage of life, whether you are new to the industry or have had a successful career and just need a refresher.

## Industry Training

Bring value to your own organization while supporting the **IPAA Educational Foundation**. IPAA offers live, eLearning and customized, in-house oil & gas training courses with proceeds benefiting the **IPAA/PESA Energy Education Center**. Check out the courses below and become involved today!

**LIVE OIL & GAS COURSES** [www.ipaa.org/education/courses](http://www.ipaa.org/education/courses)

### Oil & Gas Overview Courses

Held at the George R. Brown Convention Center in Houston  
Hosted by **NAPE**

- August 20, 2019
  - February 4, 2020
  - August 11, 2020
- CEUs available: GARP CPD, NASBA CPE and AAPL recertification*

### Oil & Gas Orientation for Newcomers to the Industry

Held at the Houston Museum of Natural Science  
• November 19, 2019



**eLEARNING COURSES** [www.ipaa.org/education/elearning](http://www.ipaa.org/education/elearning)

### Available Now:

- Petroleum Geology for Non-Geologists\*
- U.S. Mineral Rights and Leasing\*
- Drilling Video: From Planning to Production

### Coming Soon:

- Oil & Gas Overview Course
  - Drilling and Completion
  - Joint Operations
- \*Qualifies for 10 American Association of Professional Landmen (AAPL) recertification credits*

## CUSTOMIZED, IN-HOUSE COURSES

Please contact Nikki Thomas at [nthomas@ipaa.org](mailto:nthomas@ipaa.org).

In partnership with  **ENERGY TRAINING RESOURCES, LLC**

## Sponsor the IPAA/PESA Energy Education Center

Every dollar raised helps us continue making an impact in students' lives. We have sponsorship opportunities for every budget. Visit [www.ipaa.org/education/about](http://www.ipaa.org/education/about) for a list of sponsorship opportunities.



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