A newsletter dedicated to Advanced Biofuels Educational programs, projects, competitions, scholarships, fellowships, green jobs and more. Click here to SUBSCRIBE

New Free Newsletter from Advanced Biofuels USA: Educational News and Resources
Advanced Biofuels USA presents an Educational News and Resources newsletter that will include information about teacher resources, scholarships, fellowships, competitions and contests; and highlight articles about green jobs in the advanced biofuels world. We would also like your suggestions about content. Call 301-644-1395 or email info @ AdvancedBiofuelsUSA.org with your ideas. Thanks.

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Featured Story
Interactive Bioenergy Career Map Published by the U.S. Department of Energy

Explore Bioeconomy Careers with the Interactive Bioenergy Career Map Published by the U.S. Department of Energy
Looking to understand how you fit within the changing bioenergy bioeconomy? The U.S. Department of Energy's Bioenergy Career Map, an interactive, educational tool that explores the growing network of bioenergy occupations, illustrates potential career education and training necessary required for profiles over 60 positions and over 100 tracks of advancement among careers that span across five subsectors of the bioenergy industry (infrastructure; agriculture, life, and physical sciences; engineering and manufacturing; education, communications, and outreach; and operations, management, and business).

While the Bioenergy Career Map profiles many bioenergy careers, it doesn't cover the universe of possibilities. There are many occupations that are not included in this map which are important to the success of the bioenergy industry.

The information presented within each occupational profile (i.e. position description, education, training, and other qualifications) was synthesized from the Bureau of Labor Statistics, U.S. Department of Labor, Outlook Handbook, 2016-17 Edition and the U.S. Office of Personnel Management's Handbook of Occupational Groups & Families. READ MORE
Related to the Career Map, a Bioenergy Career Exploration Wheel. This interactive tool explores the growing network of bioenergy occupations, illustrates potential career pathways, and identifies the education and training necessary for each career. This map is intended to be an educational tool and does not endorse any particular career, university, or private business. This map is not a listing tool for job opportunities at the U.S. Department of Energy or any other Federal government agency.

The “Career Exploration Wheel” graphically depicts how academic concentrations relate to bioenergy industry sub-sectors. The career map can be used by people of all stages or levels of academic and professional progression. Mouse over the wheel to explore how your academic background corresponds to bioenergy industry related careers in Communication, Education, & Outreach; Engineering & Manufacturing; Agriculture, Life, & Physical Sciences; Operations, Management, & Business; and Infrastructure. Clicking on one of the five options will forward you to the Bioenergy Career Map, highlighting the career opportunities available within your chosen discipline. READ MORE

Educational News and Resources

Scroll down for:

- Teacher Resources
- News about and for Students and Schools (K-12)
- Scholarships, Fellowships, Internships in the US and around the world
- Competitions and Contests
- Executive or Professional Training
- Online Courses
- Featured Study Programs
- Green Jobs in the News

Use these links for more information about:

- Grants in the news
- Requests for Speakers, Posters, Presentations
- Latest News about College/University Research
- Webinars: Upcoming and Archived

Teacher Resources
Wisconsin Energy Institute’s (WEI) Energy Institute for Educators — July 19-21, 2017 — Madison, WI

The Wisconsin Energy Institute's (WEI) Energy Institute for Educators provides the opportunity for educators to engage with cutting-edge energy research at UW–Madison, and gain practical tools and materials for teaching students fundamentals of energy and sustainable energy systems. The theme for the institute is "Energy, sustainability and climate change: Bridging contemporary science and engineering with classroom learning." **READ MORE**

Science Coaches: The Application for the 2017-18 School Year Is Now Open
May 30, 2017 —

(American Chemical Society) Science Coaches is a joint American Chemical Society (ACS) and American Association of Chemistry Teachers (AACT) educational outreach initiative dedicated to enhancing science skills in students across the United States. The program …

Bioenergy Institute for Educators (BIE) — June 26-30, 2017 — Madison, WI DEADLINE: May 1, 2017
March 28, 2017 -

(Great Lakes Bioenergy Research Center) Bioenergy is an exciting area of research and development and can provide excellent opportunities for engaging students. Join us for an intensive 5-day program to learn about the latest developments …

May 19, 2017 –

(Bergeson & Campbell) Bergeson & Campbell, P.C. (B&C®) is pleased to announce the publication of New TSCA: A Guide to the Lautenberg Chemical Safety Act and Its Implementation, released today by the American Bar Association …

STEM In Schools Reach New Level with DNA Sequencing Brought to 7th Graders
May 18, 2017 –

by Helena Kennedy (Nuu Digest) In New York, 12 and 13 year olds get to try their hand at DNA sequencing during science class for the first time thanks to startup PlayDNA. PlayDNA is working with …

Summer Institute for Climate Change Education — June 26-28, 2017 — St. Paul, MN
May 3, 2017 –

Participants will have the opportunity to:

Hear from leading experts from the University of Minnesota on their research and experience on climate science and climate change solutions
Engage with hands on activities that help bring …
For Ten Years Climate Generation Has Been Building the Climate Literacy and Confidence of Educators through Professional Development Opportunities.

May 2, 2017 –

(Climate Generation) Build your comfort, confidence and competence to bring climate change into your educational setting with our virtual and in-person training opportunities!

For ten years Climate Generation has been building the climate literacy and confidence …

Climate Generation Offers a Suite of Grades 3-12 Curriculum Resources in the form of Curriculum Guides, as Well as Online Modules that Can Be Downloaded for Free.

May 2, 2017 –

(Climate Generation) Aligned with Minnesota state science, social studies and language arts standards, the Next Generation Science Standards and the climate and energy literacy principles, the curricula has been reviewed by scientists, professional educators, and …

Find more Teacher Resources here.

News about and for Students and Schools (K-12)

The 2017 BioenergizeME Infographic Challenge Winner Is… “Hydrothermal Liquefaction of Algae”!

May 26, 2017 –

(U.S. Department of Energy)The Bioenergy Technologies Office (BETO) announced the winner of the 2017 BioenergizeME Infographic Challenge on May 4 during a special awards ceremony. The winning infographic, titled “Hydrothermal Liquefaction of Algae,” was created …

NREL Research Takes Off For International Space Station

May 18, 2017 –

by Wayne Hicks (National Renewable Energy Laboratory) Experiments bear repeating, especially when they explode on their way to the International Space Station.

Almost two years ago, on June 28, 2015, the rocket carrying experiments from Chatfield …

Central High School Tours Heartland Corn Products

May 11, 2017 –

(Minnesota Bio-Fuels Association) Twenty-six students from Central High School in Norwood Young America visited Heartland Corn Products today to learn more about renewable energy production.

The students, from grades nine to 12, toured the various processes …
For more information about K-12 activities and teacher resources, click on these topics in the Categories list along the right margin of the Advanced Biofuels USA website. You can also find information on these topics on the Teacher Resources, For Kids and Education Resources pages on the site.

Scholarships, Fellowships, Internships in the US and around the world

Bioenergy Internship & Fellowship Opportunities
(U.S. Department of Energy) The U.S. Department of Energy’s (DOE’s) Bioenergy Technologies Office (BETO) regularly engages interns and fellows in the sciences, engineering, and liberal arts through a variety of internship and fellowship programs, including …

Planet Forward Correspondents for 2017-18 Application DEADLINE: June 2, 2017
(George Washington University) Lead the conversation by joining the Planet Forward Correspondents for 2017-18! Correspondents work closely with the Planet Forward team to highlight compelling characters and innovative ideas. Pieces are featured on PlanetForward.org and …

Scholarships Available for Summer Institute for Climate Change Education — June 26-28, 2017 — St. Paul, MN
Scholarships are being offered to attend Climate Generation: A Will Steger Legacy's Summer Institute for Climate Change Education in St. Paul, Minnesota, June 26-29, 2017. They are able to offer this scholarship due to the generosity of a group of concerned donors that want to ensure that science-based and credible resources and training are available to you and your colleagues, despite recent attempts to undermine science education.

Participants will have the opportunity to:

- Hear from leading experts from the University of Minnesota on their research and experience on climate science and climate change solutions
- Engage with hands on activities that help bring climate change concepts into the classroom
- Learn about how Climate Generation curriculum supports language arts, social studies, and science standards, including the Next Generation Science Standards

Travel Grants for Students to Attend October 29-November 1, 2017 Algae Biomass Summit
(Algae Biomass Organization) The Algae Foundation has announced that it is offering $500 travel grants for students to attend the 11th Annual Algae Biomass Summit in Salt Lake City, Utah, USA, from October 29 through …

Education Internships at Idaho National Laboratory
(Idaho National Laboratory) As a Department of Energy facility, INL offers a diverse number of paid internship positions to high school, undergraduate and graduate level students. These internship opportunities enable students to collaborate with experienced …
Association of Commonwealth Universities’ Early Career Academic Grants

Early Career Academic Grants are open to early career academics employed by ACU member universities, enabling them to participate in a conference held in a Commonwealth country other than their own. A minimum of 30 grants are on …

Research Experience for Undergraduates Summer Program

Starting with the summer of 2017, the Center for Bioplastics and Biocomposites (CB2), will be establishing a new Research Experience for Undergraduates (REU) site designed to provide undergraduate students …

Education Internships at Idaho National Laboratory

As a Department of Energy facility, INL offers a diverse number of paid internship positions to high school, undergraduate and graduate level students. These internship opportunities enable students to collaborate with experienced …

NIFA Announces $3.1 Million in Available Funding to Train the Next Generation of Agricultural Leaders

The U.S. Department of Agriculture’s (USDA) National Institute of Food and Agriculture (NIFA) today announced the availability of $3.1 million to train the next generation of agricultural leaders. This funding is …

Ciba Travel Awards in Green Chemistry

This annual green chemistry award sponsors the participation of students—from high school through graduate school—to attend an American Chemical Society (ACS) technical meeting, conference, or training program, having a significant green chemistry or sustainability component. …

CBMNet Funding Announcements; Includes Undergraduate Vacation Scholarships

At CBMNet we foster collaborations between academia and industry to tackle research challenges in Industrial Biotechnology and Bioenergy (IBBE). We are working to understand the mechanisms by which substances are transported into, …

The Young African Leaders Initiative (YALI) is a signature effort to invest in the next generation of African leaders. President Obama launched YALI in 2010 to support young African leaders as they spur growth and prosperity, strengthen democratic governance, and enhance peace and security across Africa.

The Mandela Washington Fellowship for Young African Leaders brings 500 dynamic young African leaders, ages 25-35, from across the continent to the United States for 6 weeks of leadership training and mentoring at twenty U.S. universities and colleges in three areas: business and entrepreneurship, civic engagement and public administration. In 2014, the Fellows were also hosted in Washington, D.C. for a three-day Presidential Summit featuring a Town Hall with President Obama. Following their in-depth academic coursework and leadership training, some Fellows remained in the United States to participate in eight-week professional internships with American NGOs, private companies, and governmental offices. Selected from nearly 50,000 applications, participants in the 2014 Mandela Washington Fellowship for Young African Leaders represent the extraordinary promise of an emerging generation of entrepreneurs, activists, and public officials. Upon returning to their home countries, the Fellows have access to professional
development opportunities, mentoring, networking and training, and seed funding to support their ideas, businesses, and organizations.

For more information about Scholarships and Fellowships, click on those topics along the right margin of the Advanced Biofuels USA website.

Competitions, Contests

RFA Launching ‘Ethanol Days of Summer’ Contest to Report Prices
May 24, 2017

(Renewable Fuels Association) Reporting prices for higher ethanol blends this summer could win you $50 in free fuel per day. Beginning on Memorial Day, the Renewable Fuels Association is launching an “Ethanol Days of Summer” …

Concept for Turning Corn Chip Oil into Biodiesel Fuel Earns Appalachian Students Second Place in International Food Solutions Challenge
May 10, 2017

by Haley Childers (Appalachian State University News) What has 18 wheels and runs on corn chips? Thanks to a food solution from two Appalachian State University students, a chip producer’s transportation fleet well could.

Senior chemistry major …

COSIA NRG Carbon XPRIZE: Tech Innovators Stalk a Stealthy WMD
April 25, 2017 –

by Jim Lane (Biofuels Digest) … Among the climate warriors fighting CO2 build-up, perhaps the most ambitious are those who are seeking to use CO2 to make industrial materials, fuels or chemicals — displacing the need …

Science & SciLifeLab Prize for Young Scientists DEADLINE: July 15, 2017
March 13, 2017

(Science Magazine) This Prize was created to recognize that global economic health is dependent upon a vibrant research community and we need to encourage our best and brightest to continue in their chosen fields of …

Global Biobased Business Competition (G-BiB)
(BE-Basic Foundation) The Global Biobased Business competition (G-BiB) is a competition for Master and PhD students from universities and universities of applied sciences in Germany, the Netherlands and Brazil. The objective of G-BiB is to stimulate entrepreneurship and innovation producing a biorenewable …

For information about other competitions and contests, click here.

Executive and Professional Training

This four-day boot camp will provide employees with a deeper understanding of Process Safety and Process Safety Management that goes beyond personal worker safety. Process Safety Management is intended to prevent severe damage to equipment …

RFA Earns 5th TRANSCAER Award for Ethanol Safety Seminars
by Cindy Zimmerman (Energy.AgWired.com)  The Renewable Fuels Association (RFA) has received the TRANSCAER® National Achievement Award for the fifth year in a row in recognition for a series of seminars last year on ethanol safety …

UC San Diego Extension’s Microbial Fermentation Workshop — August 16-18, 2017 — San Diego, CA

Developed in partnership with UC San Diego’s Division of Biological Sciences, this 3-day workshop is designed to provide a deep dive into bioreactor principles and bioprocess development. You will be equipped with the fundamental knowledge …

International Intensive Biogas Training — June 20-22, 2017 — Dundee, Scotland

For the second time the Renewable Energy Association (REA) and the International Biogas and Bioenergy Center of Competence (IBBK Fachgruppe Biogas) are delighted to welcome you for a 3-day long (June 19-21, 2017) in-depth Biogas …

Upcoming Ethanol Safety Seminars
The Renewable Fuel Association, in partnership with several industry entities, will be hosting a series of Ethanol Safety Seminars in 2017 at various locations throughout the United States. This course was developed to give first responders, hazmat teams, fuel transporters, and safety personnel an in-depth look at proper training techniques needed when responding to an ethanol-related emergency. The seminars are FREE to attend. The upcoming cities for 2017 Ethanol Safety Seminars are detailed below. To register, go to www.rfa.traincaster.com.

Online Ethanol Emergency Response Course
The Renewable Fuels Association is now offering an online version of its Ethanol Emergency Response course for first responders.

The two-hour training course, offered in partnership with the International Association of Fire Chiefs (IAFC) and TRANSCAER®, covers content from the “Training Guide to Ethanol Emergency Response,” which has recently been updated.

This new online training is targeted towards emergency responders, but is open to anyone with interest in ethanol emergency response. Upon completion of the course, participants will have knowledge related to ethanol and ethanol-blended fuels, including the use, chemical and physical characteristics, transportation modes, transfer operations, basics of foam, suggested responder tactics and strategies and environmental issues.

TerraTech on VoiceAmerica Wednesdays at 6AM Pacific Time
TerraTech highlights new and sustainable products, companies and cutting-edge advances in the lab that are changing the way people dress, eat, drink, drive, build, package, protect, monitor, maintain and get well. Each week, TerraTech
Online Courses

ATEC Passes First Semester
May 10, 2017
(Algae Industry Magazine) The Algae Technology Education Consortium (ATEC), a collaboration among the National Renewable Energy Laboratory, the Algae Foundation, universities, community colleges, and industry production companies across the United States, has successfully implemented the first …

Climate Generation Offers a Suite of Grades 3-12 Curriculum Resources in the form of Curriculum Guides, as Well as Online Modules that Can Be Downloaded for Free.
May 2, 2017
(Climate Generation) Aligned with Minnesota state science, social studies and language arts standards, the Next Generation Science Standards and the climate and energy literacy principles, the curricula has been reviewed by scientists, professional educators, and …

Advanced Biofuels Course—Special Edition — Online until June 30, 2017
March 31, 2017
BioFuelNet Canada, a national research network hosted by McGill University, is offering an online certificate course on advanced biofuels. This is a special edition for engineers who would like to complete their mandated training. Anyone …

@EthanolRFA Offers Online #Ethanol Emergency Course
August 5, 2016 —
by Joanna Schroeder (Energy.AgWired.com) For first responders unable to attend in-person training courses, the Renewable Fuels Association (RFA) is now offering an online version of its Ethanol Emergency Response course. Offered in partnership with the …

Featured Study Programs

Applications Being Accepted: Ph.D. Program in Bioenergy by the Three State Universities in São Paulo (USP, UNICAMP and UNESP) DEADLINE: May 31, 2017
April 13, 2017 —
(USP, UNICAMP and UNESP) Applications for the Ph.D. program in Bioenergy, jointly offered by the three state universities in São Paulo (USP, UNICAMP and UNESP), will be open from April 7 to May 31, 2017, for candidates starting …

Green Jobs

Articles that feature information about jobs in the advanced biofuels world
10 Industrial Biotechnology Wave Trends to Watch
May 26, 2017
by Jim Lane (Biofuels Digest)  There are news items, then there are trends, and finally there are wave trends — trends of critical importance and that carry the likelihood of having long-lasting impact. Like the fast ripples …

“The Belt and Road Initiative” Improved Trade between China and Cambodia; North Asia Resources Holdings Limited (00061) Takes Advantage of the Opportunity
May 25, 2017
(ACN Newswire)  At 24 March 2017, the Big Data Report of Trade Cooperation under the Belt and Road Initiative 2017 released. According to the figures, it was reported that the total trade volume between China …

Cultivating Homegrown Energy Solutions
May 24, 2017
by Rick Santorum (Washington Times/Americans for Energy Security and Innovation) …  With all the publicity around fracking, it’s easy to assume that America’s own domestic oil production is more than enough to fuel a growing …

Supplying the Bioeconomy: The Digest’s 2017 Multi-Slide Guide to DOE Feedstocks R&D Programs
May 24, 2017
by Jim Lane (Biofuels Digest)  More than 1 billion tons of biomass could be domestically converted into biofuels and products, say DOE. Biomass could displace 25% of U.S. petroleum use annually by 2030, keeping $260 billion in the United States, …

Ethanol and Biodiesel Boost Bottom Line for Farmers
May 23, 2017
by Steve White (Nebraska TV) …  Kelly Brunkhorst, executive director of the Nebraska Corn Board said, “You’re talking about 1,300 direct employ jobs across the state, across rural Nebraska, that’s key. Having those jobs and tax …

Ethanol Industry Expert: Biofuels Tug-of-War Is an EU Invention
May 15, 2017
by Sarantis Michalopoulos (EurActiv)  The conflict between second and first generation biofuels — depicted as good and bad for the environment — only exists in Brussels. In fact, it’s the brainchild of the European Commission, …

Guest Commentary: Corn Is Food and Fuel
May 15, 2017

Central High School Tours Heartland Corn Products
May 11, 2017 –
(Minnesota Bio-Fuels Association) Twenty-six students from Central High School in Norwood Young America visited Heartland Corn Products today to learn more about renewable energy production. The students, from grades nine to 12, toured the various processes …

Renewable Diesel A-Go-Go: The Digest’s 2017 Multi-Slide Guide to Neste
May 11, 2017 –
by Jim Lane (Biofuels Digest) Neste is a refining and marketing company, with a production focus on premium-quality, lower-emission traffic fuels. The company produces a comprehensive range of major petroleum products and is the world’s …

Houston Firm Proposes $500 Million Biofuel Refinery in Longview
May 10, 2017 –
by Marissa Luck (The Daily News) A Houston-based group of investors is once again looking to develop a biofuel refinery in Cowlitz County, more than a year after their plans for oil, propane and biofuel …

The Digest’s 2017 Multi-Slide Guide to Agrisoma
May 8, 2017 –
by Jim Lane (Biofuels Digest) The production of Agrisoma's Resonance Carinata is being expanded to multiple locations globally to provide a supply of sustainable, non-food oils for meeting the demand for sustainable biofuels. Resonance Carinata …

New Study Shows Economic Value of RNG in California
May 4, 2017 –
by RNG Coalition (Biomass Magazine) A new jobs study reveals that deploying trucks fueled by renewable natural gas could create up to 130,000 new jobs and add $14 billion to California’s economy. The ‘RNG Jobs Report’ …

Old Town Mill Eyed for Full-Scale Plant to Turn Wood Pulp into Ingredient for Diesel, Jet Fuel
May 4, 2017 –
by Tux Turkel (Portland Press Herald) ’The biggest obstacle now is financing,’ says Stephen Fitzpatrick, president of Biofine Technology LLC, which is partnering with UMaine on a pilot plant at the site. — The former …

Haryana Government Agrees to Indian Oil’s 2G Ethanol Investment Plan
May 2, 2017 –
by Meghan Sapp (Biofuels Digest) In India, the Haryana state government has approved Indian Oil's investment proposal for a $93.3 million 100,000 liter per day second-generation ethanol plant using crop waste including 50 acres of …

May 2, 2017 –

The 2017 U.S. Energy and Employment Report (USEER) finds that the Traditional Energy and Energy Efficiency sectors today employ approximately 6.4 million Americans. These sectors increased in 2016 by just under 5 percent, adding over …

Great Leaf Forward: The Top 10 Trends Driving the Canadian Advanced Bioeconomy
May 2, 2017 –

by Jim Lane (Biofuels Digest) Although the bigger players — China, the US, Brazil and the EU take most of the headlines in the advanced bioeconomy, Canada is definitely “boxing above its weight class” these days, …

Webinars
For information about upcoming webinars, click here.
For archived webinars, click here.

Requests for Speakers, Posters, Presenters
For information about conferences seeking speakers, posters and presenters, click here.

Grants
For information about grants, click here.

Latest News about University/College Research
For articles about recent developments in university/college research, click here.

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Let us know.
Also, what you would like to see in this Advanced Biofuels Education Newsletter?
If you have contributions, lesson plans, experiments or news you would like to share, please contact Joanne Ivancic at info @ AdvancedBiofuelsUSA.org
or call 301-644-1395
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You can make your gift in memory or in honor of someone special. Just let us know. Call (301-644-1395) or send an email: info@AdvancedBiofuelsUSA.org. We'll send a special card acknowledging your gift.

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