

swe **NEXT**



What is Mining Engineering?

When you drive your car or talk on your phone, do you ever think about where we get the materials they are made of? Where does the iron that makes the steel in your car come from? How about the gold, copper and silver used in the wiring of your cell phone?

Developments like these wouldn't be possible without the work of Mining Engineers.

Many different materials are extracted from the earth by mining, including aluminum, mercury, nickel, zinc, diamonds and even clay, gravel and sand. Mining Engineers are concerned with both the safety and the efficiency of mines. Some design the mining methods while others design mining equipment. Still others study terrain to find ideal mining locations. They also work to reduce the negative effects on the environment.

[Click here](#) to learn more about what Mining Engineers do, where they work and starting salaries.

Day in the Life of a Mining Engineer

Meet Meghan McDonald, a Mining Engineer for the State of New Mexico Abandoned Mine Land Program. Find out how she got there, the types of projects she's working on, and how you can #BeThatEngineer on SWE's [All Together](#) Blog.



Happy National Volunteer Month!

Think about someone who has had a positive impact on your life, either directly or indirectly. Where would you be without that person? Wouldn't it be great to be that person to someone else?

In our busy lives it's important to take some time to give back to our communities by volunteering. This benefits not only those who we help, but also ourselves. When you dedicate time to your community, you help make it a better place to live. You can provide services to those in need. You can exchange knowledge with others. In doing this, you strengthen relationships with those around you, creating an environment where people want to help each other. This is a great way to see beyond yourself and learn about your neighbors.

One great way to volunteer in your community is to help promote a love of engineering with younger students. With your SWENext Club, you can mentor younger students or host an engineering day. You could tutor students to help them succeed in their classes. You could help a younger robotics team or STEM club with their projects. There are a number of ways you can give back to your community and have an impact on the generation after you!

(Don't belong to a SWENext Club? You can start one at your school or in your community. Here's how: [check out SWENext Clubs 101](#). Everything you need to get going is there! Questions about SWENext Clubs? Contact us at outreach@swe.org.)

As a student, volunteering and doing community service projects can also be helpful when applying for colleges and scholarships. Universities like to see students who care about the world and want to help make it a better place. And many scholarship applications, including SWE's, ask you to list your community service. **So get out there and volunteer!**

Attention High School Seniors: Apply for a SWE Scholarship!

The SWE Scholarship application for incoming Freshmen (2019-2020) is now open! [Apply here!](#) And check your email for insider tips sent to you during February.

Last year, five SWENexters won SWE Freshmen scholarships. Congratulations to Kira Corbett, Gauri Dandi, Kendra Davidson, Alyssa Schimm and Sabriyah Taher. We would love it if even more SWENexters won this year!

Time is running out! The scholarship application deadline is May 1, 2019, at 5:00 p.m. Central Daylight Time.

Here's an insider tip from a SWE Scholarship Judge:

"Pick your two references wisely. Both references should be able to talk about your interest in engineering and why you would be a great engineer. It's okay if your "Personal" reference is another teacher, or a guidance counselor or the principal.

In some applications I've judged, the Personal reference was a neighbor who said great things about the applicant, like what a wonderful babysitter she was. And that's

nice to hear. But the judges really want to see what the references say about what you've done in STEM, that you have a passion for engineering, and that you'd make a great engineer."

SWENext Clubs Corner



In Clubs Corner, we feature a SWENext Club every month. This month we are featuring the **Bob Jones High School SWENext Club**.

Hey y'all! In 2015, the North Alabama SWE Section helped found the Bob Jones High School Society of Women Engineers (SWENext) Club. These students are lucky to have an Engineering Academy at their school where they can take five different engineering courses during their high school years.

This club was founded to foster a sense of comradery among the girls who were taking these classes. At the time, there were only two to three girls in each class, so it was important to establish a community where students could support each other throughout this curriculum. This club has helped foster these students in many aspects.

SWENexters have had the awesome opportunity to have an eight hour professional soldering class with a [local electronics company](#), learn to weld at a community college, have monthly "Breakfasts with an Engineer," receive mentorship from the [University of Alabama in Huntsville SWE Section](#) and more. Their school even published an [article](#) about all the exciting things happening with their club!

Interested in having your SWENext Club or Club Officer highlighted in the monthly SWENext Newsletter? Email Haley, the SWENext Clubs Reporter, at hla37@cornell.edu!

Awards, Awards, Awards!

SWENexter Rowan Dothager, 11th grade, won the Best Essay Award at WE Local St. Louis with this essay:

Why is it important for girls and young women to pursue STEM careers?

Girls and young women need to be pursuing STEM careers because:

- The diversity we bring to STEM fields equals more minds solving the tough problems of tomorrow. How can we solve major problems with only half of the people working on them?
- When girls and young women pursue STEM careers and do it visibly, it is empowering for other girls who follow us. We lead the way for others by succeeding in ways that show it is possible. No matter what!
- Why wouldn't we? STEM fields are growth careers for the future – great jobs with rewarding work and good pay. More women in higher paying jobs would close the wage gap.
- In conclusion, having more girls and young women pursue STEM careers now leads to more women leading in STEM fields later.

We couldn't say it better ourselves! Congratulations, Rowan! Enjoy your \$50 gift card!

SWENext Social Media Challenge with a Chance to Win a \$25 Amazon Gift Card!

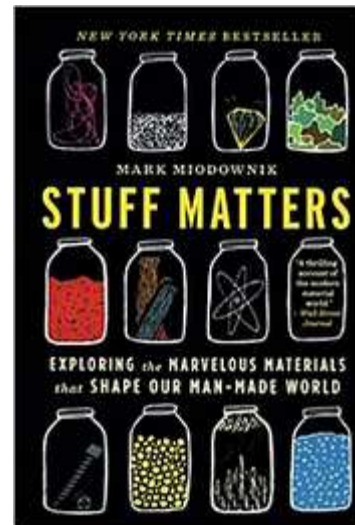
April 23rd is World Book Day! Here at SWE we want to know what book you've read recently that has inspired you to learn more about engineering and science.

As an example, [Stuff Matters: Exploring the Marvelous Materials That Shape Our Man-Made World](#), written by Mark Miodownik, is a cool book that talks about the materials in the products that we use every day. What book has inspired you? Share with us!

Post it by May 4th on our closed [High School](#)

[SWENext Facebook group page](#). #BeThatEngineer

The winning SWENexter will be selected by random from all entries and will win a \$25 Amazon gift card.



Did you know? SWENext is on YouTube!

Subscribe at [SWENext YouTube Channel](#) to make sure you don't miss any new

upcoming videos.

Featured SWE member engineers this month on the SWENext YouTube Channel:

- [Josa Hanzlik, Biomedical Engineer](#)
- [Veronica Robertson, Chemical Engineer](#)



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