



## 2016-2017 Year-End Report

Section Information			
Section Name:	Brigham Young University American Nuclear Society Student Section		
Section Mailing Address:	350U Clyde Building, Department of Chemical Engineering, Brigham Young University		
	Street <b>Provo</b>	<b>UT</b>	<b>84602</b>
	City	State	Zip
Section website:	<a href="https://www.facebook.com/ANSBYU/">https://www.facebook.com/ANSBYU/</a>	Section email:	<a href="mailto:ansbyu@gmail.com">ansbyu@gmail.com</a>
Facebook:	<a href="https://www.facebook.com/ANSBYU/">https://www.facebook.com/ANSBYU/</a>	(If you have a permanent address like <a href="mailto:ANS@school.edu">ANS@school.edu</a> )	
No. of Section Members:	<b>53</b>		<b>4</b>
	Undergraduate		Graduate
NE Department Enrollment:	<b>N/A</b>		<b>N/A</b>
	Undergraduate		Graduate
Dues Required of Members:	<b>\$ 20.00</b>	per	<b>Year</b>
			Year, Month, etc.
Advisor Information			
Name:	Dr. Matthew Memmott		
Email:	<a href="mailto:memmott@byu.edu">memmott@byu.edu</a>	Phone:	(801) 422-6237
Mailing Address:	350U Clyde Building, Department of Chemical Engineering, Brigham Young University		
	Street <b>Provo</b>	<b>UT</b>	<b>84602</b>
	City	State	Zip
Outgoing Officer Information			
Position	Name	Email	Year and Major
President	Jacob Ladd	<a href="mailto:ladd.jacob@gmail.com">ladd.jacob@gmail.com</a>	Junior, Chem. E
Vice-President	Richard Fitzhugh	<a href="mailto:richardlfitzhugh@gmail.com">richardlfitzhugh@gmail.com</a>	Senior, Chem. E
Comm. Officer	Trevor Lillywhite	<a href="mailto:trevor.lillywhite@gmail.com">trevor.lillywhite@gmail.com</a>	Senior, Chem. E
Treasurer	Neal Gaffin	<a href="mailto:ndgaffin@gmail.com">ndgaffin@gmail.com</a>	Junior, Chem. E
Webmaster	Michael Wray	<a href="mailto:michael@drwray.org">michael@drwray.org</a>	Junior, Chem. E
Secretary	Ben Neff	<a href="mailto:benellneff@gmail.com">benellneff@gmail.com</a>	Senior, Chem. E
Membership	Nathan Murray	<a href="mailto:nathan.r.murray@gmail.com">nathan.r.murray@gmail.com</a>	Ph.D., Chem. E

Programs	Joel Johnson	ridingdk@gmail.com	Senior, Chem. E
<b>Incoming Officer Information</b>			
<b>Position</b>	<b>Name</b>	<b>Email</b>	<b>Year and Major</b>
President	Sarah Skousen	sarah.ann.s@hotmail.com	Senior - Chem. E
Vice-President	Alex Wright	alexandwright@gmail.com	Junior- Chem. E
Comm. Officer	Jihun Jeong	jihunj.jeong@gmail.com	Senior - Chem. E
Treasurer	Richard Hunter Rawson	rawpower82@gmail.com	Junior - Chem. E
Webmaster	Parker Hanson	phanson96@gmail.com	Junior - Chem. E
Programs	Michael Stoddard	mnstoddard@gmail.com	Masters - Chem. E
Public Comm.	Jacob Christensen	jacobdchristensen@gmail.com	Senior - Chem. E
Secretary	Jacob Ladd	ladd.jacob@gmail.com	Senior - Chem. E
<b>Major Activities (Outreach, Social, Fundraising, etc.)</b>			
	<b>Date</b>	<b>No. Attended</b>	<b>Activity Type</b>
<i>Example:</i> Shadow Day – Hosted prospective NE Undergrads (current high school seniors who have been accepted into the NE program)	2/12/06	12 mem, 12 HS stud	Outreach
Opening Social - Advertised for our Student section and held activities to encourage members to make friends	9/8/16	50 mem & non-mem	Development
Chuck Goodnight Lecture - Discussed entering the nuclear industry	9/16/16	28 mem	Development
BYU Club Rush - Advertised our student section and provided demonstrations, including geiger counters and cloud chambers	9/16/16	6 mem	Outreach
BYU Fall Pow Wow - Taught Boy Scout Merit Badge	9/24/16, 10/22/16	10 mem 175 scouts	Outreach
Intern Panel - Discussed internship opportunities in nuclear engineering and the nuclear industry	10/21/16	19 mem	Development
Professor Research Forum - Professors presented their current research relating to nuclear science	11/10/16	15 mem	Development
See page 8 for additional activities.			
*** Please attach additional pages if necessary. Emphasize outreach activities if possible.			
<b>General Summary (Optional)</b>			

If desired, please write a brief summary of your section's accomplishments and activities from this past year.

In the 2016-2017 School Year, our ANS Student Section:

- Won first place in the national Student Member-Get-A-Member Campaign
- Hosted a Nuclear Energy & the Environment Symposium with the BYU Environmental Science Club
- Accompanied sections from University of Utah and Utah State University to visit over 100 Utah state legislators
- Hosted educational booths on nuclear science at events with more than 1000 middle school and high school students
- Taught over 300 Boy Scouts the Nuclear Science Merit Badge

## **Budget**

Please enter your section's budget here, or attach an additional page. Break down income into dues, funding from your University's student government, donations, etc. Break down expenditures for each event (e.g. meeting food, social events, outreach program supplies, etc.).

See page 7.

Please submit this form to the ANS Student Sections Committee  
at [ssc@ans.org](mailto:ssc@ans.org) by **May 15** of each year.

### **Certificate of Distinction**

To be eligible, your section must complete the forms above in the general Annual Report, have up to date Bylaws and Rules, organize and submit a report on at least one outreach event with enough information for other sections to use, and report an additional event (can be non-outreach) for posting on our website. The outreach event form and other even form are given below—both must be completed to qualify for the COD. Alternatively, submission of a Glasstone application meets all requirements for the COD.

### **Outreach Event (Include at least 1 photo of the event)**

Event Name: BYU Fall Merit Badge Pow Wow

Event Date: September 24, 2016 and October 22, 2016

Number of Attendees: 175 Boy Scouts (Ages 12-17)

Number of ANS Members Involved: 10

Event Description:

BYU ANS recognizes the importance of developing familiarity with nuclear science and engineering among the rising generation, so we teach a Nuclear Science merit badge class to boy scouts every Fall and Winter. Brigham Young University hosts a Merit Badge Pow Wow every semester that brings an average of 7000 boy scouts onto campus. Soon after our club formation, we reached out to the Pow Wow leadership and asked if we could begin teaching a Nuclear Science merit badge class, and they excitedly agreed to let us participate, mentioning that they had wanted to start that class but had previously been unable to find suitable counselors to teach it.

Our first Pow Wow was in 2015. This year, our Fall Pow Wow was held on September 24<sup>th</sup> and October 22<sup>nd</sup>. Over the course of two Saturday mornings, we taught three classes of nearly sixty boy scouts the requirements of the Nuclear Science merit badge. The course content includes education on fundamental nuclear science definitions, demonstrations of building electroscopes and atomic models, discussions of careers in the nuclear industry, and a tour of a research laboratory where radioisotopes are used.

Practices we have found helpful for this event are using a powerpoint to teach the classes as a whole, and then dividing the scouts into smaller groups for the tours and for the completion of electroscopes or atomic models. Nearly all of the 175 scouts completed all of the requirements to receive the Nuclear Science merit badge; the only exceptions were those who missed one of the two Saturdays. Ten of our ANS section members volunteered to teach the merit badge classes.



**Other Event (Include at least 1 photo of the event)**

Event Name: Dr. Andrew Klein Visit and Lecture

Event Date: April 25, 2017

Number of Attendees: 45

Event Type: Guest Lecture

Number of ANS Members Involved: 35

Event Description:

Our ANS Student Section won the 2017 Student Member-Get-A-Member campaign, and consequently we were awarded with a visit from Dr. Andrew Klein, the president of the American Nuclear Society. After his arrival, we took him on a tour around the campus of Brigham Young University. Following the tour, our student section met, and Dr. Klein awarded us with our certificates for coming first place in recruiting the most new members, and third place in the highest number of new students recruited.

Additionally, Dr. Klein gave a presentation on the future of the energy industry, and how we, as students,

can make the biggest impact. After the presentation, he fielded questions for another 30 minutes.

Although the event was held the same week as final exams at BYU, we had a great turnout of over 40 present, when we were expecting only 20 to 30 (which is more typically of our club events). The good turnout is likely due to our advertising, including advertising outside of just club members.





Acct	Class	Amount	Line Description	Jrnl Ref	Journal ID	View Detail	JH Jrnl Date
9250	ENGTC	-1,000.00	From ETLIC, club funding		LCOCT01	JE	28-Oct-2016
6100	00000	-200.00	ANS Dues		CASHN748		15-Oct-2016
6100	00000	-420.00	ANS Dues	006263492	CASHN023		05-Oct-2016
6100	00000	-100.00	ANS Donation Robert Penn	006367755	CASHN048		09-Nov-2016
6100	192812	-500.00	ChemEng Donation 16-17				01-Jan-2017
4745	00000	-80.00	ANS Dues	006584728	CASHN104		26-Jan-2017
6100	00000	-120.00	ANS Dues	006622200	CASHN112		07-Feb-2017
6100	00000	-10.00	ANS Membership Dues	006857010	CASHN162		18-Apr-2017
6100	00000	-200.00	ANS Dues				30-Mar-2017
Total Income:		-2,630.00					

6100	00000	29.51	MACEYS PROVO	<a href="#">EX00327669</a>	EXP1616	<a href="#">Y-Expense</a>	04-May-2016
6220	00000	331.50	V74 IDAHO	<a href="#">SALES</a>	PHP16229		29-Feb-2016
6220	00000	327.42	V75 IDAHO	<a href="#">SALES</a>	PHP16229		29-Feb-2016
7000	00000	425.00	SHANE GALLAGHER	<a href="#">EX00298394</a>	EXP1540	<a href="#">Y-Expense</a>	15-Jan-2016
6100	00000	5.56	MACEYS PROVO	<a href="#">EX00376545</a>	EXP1732	<a href="#">Y-Expense</a>	19-Jan-2016
6100	00000	9.47	SMITHS FOOD #4136	<a href="#">EX00376545</a>	EXP1732	<a href="#">Y-Expense</a>	19-Oct-2016
6100	00000	25.72	VISTAPR*VISTAPRINT.COM	<a href="#">EX00364964</a>	EXP1703	<a href="#">Y-Expense</a>	08-Sep-2016
6100	00000	179.47	JOEL JOHNSON	<a href="#">EX00371325</a>	EXP1723	<a href="#">Y-Expense</a>	06-Oct-2016
6100	00000	23.96	JOEL JOHNSON	<a href="#">EX00381616</a>	EXP1739	<a href="#">Y-Expense</a>	28-Oct-2016
6100	00000	16.98	ACE HARDWARE OF PROVO	<a href="#">EX00376545</a>	EXP1732	<a href="#">Y-Expense</a>	19-Oct-2016
6100	00000	39.96	BYU WSC COUGAR CAFE	<a href="#">EX00369157</a>	EXP1712	<a href="#">Y-Expense</a>	21-Sep-2016
6100	00000	10.67	AMAZON.COM	<a href="#">EX00406391</a>	EXP1799	<a href="#">Y-Expense</a>	31-Jan-2017
6100	00000	5.28	AMAZON.COM	<a href="#">EX00407895</a>	EXP1803	<a href="#">Y-Expense</a>	06-Feb-2017
6100	00000	3.17	AMAZON.COM	<a href="#">EX00407895</a>	EXP1803	<a href="#">Y-Expense</a>	06-Feb-2017
6100	00000	8.54	AMAZON.COM	<a href="#">EX00407895</a>	EXP1803	<a href="#">Y-Expense</a>	06-Feb-2017
6100	00000	41.74	ASIAN MARKET	<a href="#">EX00410283</a>	EXP1805	<a href="#">Y-Expense</a>	08-Feb-2017
6100	00000	2.98	BYU CREAMERY ON NINTH	<a href="#">EX00410283</a>	EXP1805	<a href="#">Y-Expense</a>	08-Feb-2017
6100	00000	39.16	JOEL JOHNSON	<a href="#">EX00413568</a>	EXP1813	<a href="#">Y-Expense</a>	21-Feb-2017
6100	00000	8.78	BYU STORE REG #112	<a href="#">EX00421895</a>	EXP1832	<a href="#">Y-Expense</a>	20-Mar-2017
6100	00000	34.02	BYU STORE REG #113	<a href="#">EX00424590</a>	EXP1837	<a href="#">Y-Expense</a>	27-Mar-2017
6100	00000	45.75	BYU TAKEOUT	<a href="#">EX00429316</a>	EXP1848	<a href="#">Y-Expense</a>	11-Apr-2017
6100	00000	39.80	JOEL JOHNSON	<a href="#">EX00420530</a>	EXP1828	<a href="#">Y-Expense</a>	14-Mar-2017
6100	00000	17.83	Lillywhite, Trevor	MSR0097144	CCS0524920		23-Mar-2017
6100	00000	25.00	LITTLE CAESARS 006	<a href="#">EX00421007</a>	EXP1829	<a href="#">Y-Expense</a>	15-Mar-2017
6100	00000	4.13	SMITHS FOOD #4136	<a href="#">EX00425920</a>	EXP1840	<a href="#">Y-Expense</a>	30-Mar-2017
6100	00000	10.51	SMITHS FOOD #4136	<a href="#">EX00425920</a>	EXP1840	<a href="#">Y-Expense</a>	30-Mar-2017
6100	00000	39.95	WM SUPERCENTER #1768	<a href="#">EX00410283</a>	EXP1805	<a href="#">Y-Expense</a>	08-Feb-2017
Total Expense:		1,751.86					

Major Activities (Outreach, Social, Fundraising, etc.)	Date	No. Attended	Activity Type	Cost
Rich Christensen Lecture - Dr. Rich Christensen from the University of Idaho visited and discussed the nuclear engineering program there.	12/8/16	26 mem	Development	\$40
Radiological Dept. Hospital Tour - We visited the Department of Radiology at a local hospital to learn about nuclear science applications in medicine.	1/19/17 to 1/20/17	18 mem	Development	N/A
Utah Nuclear Engineering Student Delegation - 5 of our members accompanied students from University of Utah and Utah State University to speak with 100 Utah State Legislators about nuclear energy.	1/31/17 to 2/1/17	15 mem & non-mem	Outreach	N/A
ANS Nat'l Member Social - Celebrated the conclusion of the Student Member-Get-A-Member campaign	2/4/17	20 mem	Development	\$100
ET Week - Hosted a booth for 1,000 middle school and high school students teaching about nuclear science	2/23/17	7 mem, 1000 stud	Outreach	\$10
Discover STEM - Hosted a booth for 500 middle school students teaching about nuclear science	2/25/17	8 mem	Outreach	\$10
March Social - Announced upcoming elections and activities for our student Section	3/10/17	25 mem	Development	\$50
BYU Spring Pow Wow - taught Nuclear Science Merit Badge to Boy Scouts ages 12-17.	3/11/17, 3/25/17	12 mem, 175 scouts	Outreach	\$10
Nuclear Energy Symposium - Co-hosted a panel on nuclear energy with the BYU Environmental Science Club, with panelists from power utilities, universities, and nuclear industry companies.	3/23/17 to 3/25/17	80 mem & non-mem	Outreach	\$100
Dr. Piyush Sabharwall Lecture - Dr. Sabharwall from Idaho National Labs visited and discussed his research.	4/6/17	20 mem	Development	N/A
ANS Elections - Members could get to know candidates running for leadership positions in the student section. Elections were held online.	4/6/17	20 mem	Development	\$40
Dr. Andrew Klein Lecture - We were awarded certificates for our winning the Student Member-Get-A-Member campaign.	4/25/17	45 mem & non-mem	Development	N/A



## **Opening Social (Thursday 8 September, 2016)**

Throwing aside the boring standard fare of hot dogs and other American food, we went for nachos and our fun idea from last year: The Meltdown Challenge (students and professors compete to see who can last the longest under various spicy heat).

An estimated 50 people showed up to partake of the food, indicating that people are excited about nuclear power and nachos. A few prizes were given out randomly to some students and were won.

The most exciting part of the opening social was the “meltdown” competition, in which the contestants had to eat nachos with increasing amounts of sriracha added to them. Dr. Memmott, the club’s faculty advisor, helped to “spice it up”—pun definitely intended—by competing personally.

ANS BYU is excited for a great year and we were happy to have such a great start.



## **Chuck Goodnight “Entering the Industry” (Friday 16 September, 2016)**

As a great way to prepare for the upcoming STEM career fair ANS BYU was pleased to host Chuck Goodnight of Goodnight Consulting as our first guest speaker of the year. He talked to the 20-30 members who attended about the needs of the nuclear industry and how we can best prepare to enter the industry. His discussion focused on the many opportunities that are available to us thus expanding our horizons on the possible entry points into the industry. Much of this knowledge comes from his experience working as a nuclear contractor with a multitude of companies worldwide. He closed his remarks by briefly covering what our resumes should include and how to maximize them for our benefit.

After his remarks we enjoyed donuts and for those that chose to stick around, Chuck answered any questions they had concerning employment, the industry, and resumes.

### **Club Rush (Friday 16 September, 2016)**

The Fulton College of Engineering and Technology's puts on annual "Club Rush," where students can come and learn about all the various clubs that they can join. ANS BYU participated in the Club Rush and had several individuals join ANS BYU and at least 13 individuals signed up to receive emails from the club. Geiger counters, atomic warheads (the candy, of course) and other information on the nuclear industry was used to entice students to come visit ANS BYU. Overall Club Rush was successful in getting the word out about ANS BYU to a large amount of students.

### **STEM Career Fair Volunteering**

Every semester the university holds a STEM career fair for students to find careers in STEM industries. ANS BYU had more than 10% of our membership volunteer at this fair. Volunteering includes registering students when they enter, walking around helping recruiters, and helping setup the career fair.

### **Los Alamos Info Session ( Wednesday 28 September, 2016)**

We had an info session by Los Alamos National Lab. They talked about some really cool topics, including plutonium reprocessing. In addition to the cool subject material, there was free JDawgs (deluxe hot dogs) for the first 25 people there.

### **BYU Fall Pow Wow (Saturday 24 September/8 October, 2016)**

We continued our tradition of teaching the Nuclear Science Merit Badge at the semi-annual BYU PowWow. Several volunteers from the club helped out during the two Saturdays. Approximately 150 Boy Scouts earned the merit badge.



### **Intern Panel (Friday 21 October, 2016)**

As a means of helping students learn about and make connection for internships, ANS BYU puts on an annual intern panel. This panel is filled by a few students who participated in internships the previous summer in the nuclear industry. Each panelist prepared a slide about the company they interned with and the projects they completed. We had panelists who interned with LANL, INL, and BWXT to name a few. Panelists also shared how they obtained their internships and gave suggestions for those who were looking. After each panelist shared his experiences, those in attendance asked questions and interacted with the intern panel. During the panel we were delighted to enjoy BYU Creamery ice cream.





### **Professor Research Forum (Thursday 10 November, 2016)**

ANS BYU hosted a forum where pizza was served and professors from several departments (mostly physics and chemical engineering) came and discussed the various projects and research opportunities available. The presentations were on a broad spectrum of topics and were interesting. Most of the current nuclear research is being done in the chemical engineering department. Hopefully more nuclear research will be done in other departments as well as more interest is generated by students and faculty. Around 10 – 15 students attended.

### **UT State Legislative Meeting w/ Dr. Memmott Presenting**

The Utah Senate Transportation, Public Utilities, Energy, and Technology Committee has been briefed on multiple occasions about the benefits of molten salt reactors and how the technology could benefit the state. Dr. Memmott, faculty advisor to BYU ANS, was one of the experts to testify before the committee. No specific legislation or funding opportunities were pushed; the purpose of the testimony was to educate the committee so that they may be more supportive of future requests. Overall, committee members are supportive and open to the idea of MSRs. A few are very supportive, and one senator vocally dissented because her constituency is pro-solar energy and she perceives that any

advance in nuclear will take away from solar. About 5-7 ANS members attended this testimonial and left the chambers directly following Dr. Memmott's presentation so that the committee members knew exactly who we were there to support.

### **Rich Christensen Lecture (Thursday 8 December, 2016)**

The December monthly meeting involved bringing Dr Rich Christensen and Dr. Marc Skinner down from the University of Idaho and Idaho National Labs. Dr. Christensen is the director of University of Idaho's engineering at Idaho Falls. Held on December 8th, and attended by about 26 members, Dr. Christensen presented on the research the University of Idaho is involved in. Because they are also very connected with Idaho National labs, Dr. Christensen talked about internships and job opportunities as well.

This relationship is one that is growing. The Uldaho ANS advisor reached out to us for ideas about how to increase activity within their chapter. Collaboration in research and class offerings are being discussed, and at least one student was hired as an intern from this annual event. This also generated a large amount of interest in many of our students to attend graduate school to further their knowledge and training in nuclear. We had around 26 students in attendance.

### **ANS Winter Meeting**

Three students from BYU attended the ANS Winter Meeting. James Richards, a National ANS member, participated in a standards committee. Jacob Ladd, then President of ANS BYU, presented a poster titled "Organizing State-level Political Action Groups." This included the efforts in the Utah Nuclear Engineering Student Delegation (UNESD). Nathan Murray, an ANS BYU member and PhD candidate working for Dr. Memmott, presented research on the Passive Endothermic Reaction Cooling System (PERCS). There were many questions following the presentation and those questions will hopefully be answered at the next winter meeting.

### **Radiological Dept. Hospital Tour (Thursday/Friday 19/20 January, 2017)**

ANS BYU took a trip to Timpanogos Regional Hospital located in Orem, about a 10 – 15 minute drive from BYU. The tour consisted of learning about X-rays, MRIs, treatment using radioactive seeds, and other nuclear medical procedures. This was a very good opportunity to learn about a side of nuclear science that is often overlooked, as nuclear power seems to get the spotlight. Overall, about 10 ANS BYU members toured the hospital on two separate dates.



### **UNESD (Tuesday 31 January, Wednesday 1 February, 2017)**

Following the template of the Washington Nuclear Engineering Student Delegation (NESD), the three major research universities in Utah banded together for the Utah Nuclear Engineering Student Delegation (UNESD). Students from each university met at the Utah State Capitol Building for pre-arranged meetings with 39 state congressmen/women. Six BYU students and one BYU staff member participated between the two days. In the meetings, we spoke about nuclear issues that were relevant to Utah, including the NuScale SMR project, the advantages of Gen IV reactors (especially MSR), the Blue Castle Project in Green River, and more. We asked about their feelings regarding nuclear power and the possibility of bringing it to Utah. The great majority were supportive or at least open to the idea. Several representatives recognized us from our visits last year and greeted us warmly. We offered to be a source of information if they had any questions going forward.

### **January Social (Thursday 2 February, 2017)**

As a way to increase club membership and interest in ANS, the Introduction to Nuclear class was encouraged to attend and build a geiger-counter at the activity. Upcoming activities were announced as well. Approximately 40 students attended this event.

### **ANS Nat'l Member Egg Roll Party (Saturday 4 February, 2017)**



As an incentive for students to become members of National ANS, a party with our advisor, Dr. Memmott, was promised. Dr. Memmott cooked enough egg rolls (on the order of 100) to satisfy everyone's appetite. Some played board games while others tried their racing skills at Mario Kart. Around 20 people attended, which included children and significant others of national members.

### **ET Week (23 February, 2017)**

Each year, the College of Engineering and Technology celebrates Engineering and Technology week by bringing middle and high school students to BYU to learn about various ET topics. Our ANS chapter hosted two booths to teach students about nuclear science. The booth had a lot of informational flyers and posters along with geiger counters, cloud chambers, and the "Rutherford Experiment" activity to show how we can learn about things that can't be seen. Several club members volunteered on a rotation throughout the day.

### **Discover STEM (25 February, 2017)**

The Discover STEM Fair is very similar to the ET Week fair described above. On one Saturday every year, the Math Education department brings in hundreds of local elementary school students to teach them how exciting things can be in the STEM fields. The booths we hosted had the same format as those for ET Week, but we changed our explanations to be fitting for the younger crowd. We talked to many parents that accompanied their children and had great conversations educating them about nuclear science. Eight ANS members volunteered at our booth.

### **March Social (Friday 10 March, 2017)**

We announced the upcoming election for the ANS Presidency. We also were able to inform the students of the rest of the activities for the school year for our student section. We had about 25 students present.

### **BYU Spring PowWow (Saturday 11/25 March, 2017)**

Like at the Fall PowWow, we had about 10 volunteers teach the nuclear science merit badge to 150-180 Boy Scouts over two Saturdays. This time, we changed the format slightly. Rather than having the boys write down all of the definitions and answers in their workbooks, we supplied an information sheet to them with all of the answers so that they would listen rather than write (12 year old boys are not good at doing both). We also added a short tour of a lab with an irradiator. This was another very successful PowWow.



### **Nuclear Energy Symposium (Thursday-Saturday 23-25, 2017)**

This year we collaborated with the BYU Environmental Science Club to put together a 3-day symposium about nuclear energy and the environment. On Thursday the 23rd we had a panel of nuclear energy experts discuss nuclear energy and how it affects the environment. The panelists included Dr. Matthew Memmott of BYU as an advanced reactor expert, Dr. Amanda Smith from the University of Utah as an expert in energy efficiency and alternative energy systems, Mason Baker as Chief Legal Officer of the Utah Associated Municipal Power Systems, and Daniel Shrum as VP of Regulatory Affairs for EnergySolutions. After an initial prompt, the students were able to ask questions. Many if not all students were involved and engaged. About 80 students attended.

On Friday, we had a free screening of Pandora's Promise. We previously invited the director, Robert Stone, to come speak to us, but his schedule didn't allow it. Just over 30 students attended, which is pretty good for a Friday night.

On Saturday, we had an environmentally-themed service project. Nearly a dozen students participated.



### **Piyush Lecture (Thursday 6 April, 2017)**

We were very excited to have a graduate seminar speaker, Piyush Sabharwall, to provide an overview of various areas of current research at the Idaho National Laboratory (INL) and insight into an ongoing facility design to support the Advanced Reactor Program and Nuclear Hybrid Energy System (NHES) initiative. Dr. Piyush Sabharwall is a staff research scientist working in the Nuclear System Design and Analysis Division at INL. He has expertise in heat transfer, fluid mechanics, thermal design, thermodynamics, and nuclear safety analyses.

### **INL Info Session (Thursday 6 April, 2017)**

Dr. Sabharwall also gave an information session about internship or job opportunities at INL. The presentation also provided an overview of the NHES with system and economic challenges and opportunities in the post-Fukushima era for the current and advanced reactor fleets.

### **ANS Election Meet and Greet (Thursday 6 April, 2017)**

At our closing social we provided pretzels and churros to students while they got to know their candidates for the ANS presidency election. Candidates running for ANS leadership positions were there so as to make a good impression. Voting this year was conducted online so that the student could have



participated even if they couldn't make it to the social.



### **U of I Info Session (Thursday 13 April, 2017)**

A few BYU alumni and current U of I grad students gave an information session about the University of Idaho nuclear engineering program. This especially was of interest to the students that were considering graduate school in nuclear engineering. There were free JDawgs for everyone.

### **Andy Kline Visit (Tuesday 25 April, 2017)**

We were honored to receive the national Student Member-Get-A-Member Campaign award from the President of ANS himself. We ordered pizza and listened to a great presentation from Andy Klein. He taught us about the different technologies of nuclear engineering. We had the opportunity to ask him a lot of questions about the differing technologies, about which he knew almost everything. It was a great experience to get the reward from him.