American Chemical Society

Student Chapters Submission Reporting

Chapter: Monmouth College Student Chapter
Academic Year: 2017-2018
Report status: Pending

Chapter Information

Members

The *Total Chapter Members* count, the *ACS Student Members during Academic Year* count, and the *Non-ACS Members* count will be available in the PDF once the Student Chapter report is submitted. Please view your dashboard for these values.

Department/Institution/Information

The *Undergraduates Majoring in Chemistry* count and the *Chemistry Faculty* count will be available in the PDF once the Student Chapter report is submitted. Please view your dashboard for these values.

Chapter Officers

Chapter President	Brandon Allen
Chapter Historian	Emily Currens
Chapter Treasurer	Laura Sanchez
Chapter Vice President	Rachel Book
Chapter Secretary	Seth Croslow

Faculty Advisors

Chapter Faculty Advisor	Audra Sostarecz
Chapter Faculty Co-Advisor	Michael Prinsell

Self-Assessment

*What are the major goals for the year? What specific objectives were set to help your chapter meet these goals?**

The major goals for the year were to gain a solid body of members and to retain these members throughout the year by providing them with a wide variety of different things to think about or participate in. The objectives that we set out were to gain at least 20 members from the Involvement Fair at the beginning of the year, to host at least 3 events in each category each semester, and to ensure that we ask for suggestions from our members at least once a month. We wanted to ensure that we were providing new things for people to interact with, whether this is in the form of new options for an eventual career, learning about new chemistry or applications of chemistry to things that they had never even considered, or by providing new experiences with a basis in chemistry that are able to both illustrate concepts in chemistry that may not exactly be intuitive and spark interest and conversation about what is actually occurring during these processes.??

*Considering the successes you had last year, what do you think are your chapter’s strengths and weaknesses? **

The chapter's strengths and weaknesses are very related to one another. We have a small number of students on campus that are actually interested in chemistry, which is expected at a small liberal arts chemistry. This is a weakness. Additionally, we do not always keep people showing up to meetings as students often become focused on what they have going on in their classes and gradually become less and less involved in extracurricular student activities. We also have had difficulty in the past with being able to schedule events that do not directly conflict with everybody's schedules, there always appears to be at least one member that has a scheduling conflict, which is difficult to avoid. We also have a lot of strengths. We have an excellent executive board. We have people that are genuinely excited about chemistry and about getting others to be excited about chemistry and the awesome/interesting things that we are able to do with chemistry. We have a lot of amazing resources in our science building that we would like to take advantage of. We have amazing faculty support. We have enough students to maintain a student chapter, but also to gain very strong personal connections with one another, which is not something that every student chapter is able to, especially at the much larger public institutions.??

*Describe a specific event or tradition that you believe is unique to your chapter.**

An event this year that we had was the planning event (and ongoing project for our organization) for a complete laser etched periodic table of elements for eventual display in the department hallway. This is a 8'x27' periodic table. This is a very large-scale event that gives students the ability to step outside of classes, to use our Full Spectrum laser engraver, and to release their stress by constructing element panels that are intended to be an eventual part of this giant periodic table. This project is especially important because creating gigantic displays requires a lot of group organization and method development, two incredibly important skills that are required in the sciences. Additionally, it gives students the ability to voice their opinion and to try out new things and to share their artistic creativity with the rest of the organization. This project is unique and definitely is something that our chapter takes pride in.????Additionally, we started an event this past year that we hope to be a tradition for the organization every year. We have multiple 3D printers, a workshop, and a laser engraver all in our chemistry department here... So during finals week of fall semester, we set up a Santa's workshop activity for the organization and anyone else that wanted to attend. During this event, we taught attendees how to use these various tools and used them to make a variety of festive Christmas-themed things. We made a variety of different ornaments, sleds, glass blew some ornaments and icicles, and also made our annual Chemis-tree with chemistry glassware and colored solutions strategically placed on a ring stand. This activity gave everybody the opportunity to blow off the steam from finals week and to learn how to use a lot of the interesting tools that we have in our department, and also gave everybody the chance to decompress while they talked about their plans for the Christmas break and made some incredibly unique gifts for others! This is an event that we tried to do during finals week of the spring semester as well and will continue to do for years to come.??

*Based on your assessment of this year's objectives, what are the chapter objectives for next year? What would you do differently next year?**

The objectives for next year are to focus on member retention and appealing to the interests of younger members of the organization. Additionally, we would like to focus on hosting less formal events in addition to the usual formal events that we host such as homework tables or study sessions, scientific article discussion meetings, etc. This is because students often feel that student organizations prevent them from being able to focus on their academics and this results in a decrease in attendance whenever something big is going on in a class. By having homework/study sessions, this will give students the ability to work with other students and to learn from other students that have already taken the class. This should ultimately strengthen the chapter as a whole and ideally will help retain member involvement. We also hope to maintain our tradition of having a demonstration event once a month. We will see how these work out!

Service

*Explain your chapter's greatest community and department/university service accomplishments?**

We provided educational service event by participating in webinars throughout the year. For one of the webinars, the opioid crisis webinar, we provided pizza and informational cards for students to take away. National chemistry week was another service event we provided for our school for students to participate in chemistry related activities. Additionally, we have been working on a 8' x 27' laser etched periodic table of elements to display in our department's hallway as a way of showing how cool chemistry can be!!

*What groups did you serve? What groups do you think you could serve in the future?**

Most of our events were centered on students at the college, particularly those in the sciences. In the past we volunteered at the local elementary schools, so we hope to continue working with elementary school kids and if possible high school kids. We will continue to serve our college peers and reach out to other majors as well. We hope to focus moreso on maintaining interest in chemistry with high school students at local high schools in the next year.??

*How did you incorporate NCW, Mole Day, and/or CCEW into these activities?**

During national chemistry week, we held a series of events and experiments for students to learn about geochemistry. NCW was our main service event this academic year as we provided 4 major events for students to participate in.

*How did you incorporate the adherence to safety standards into your service activities, when needed? **

Whenever we did demonstrations, we made sure to discuss the safety of the materials that we were working with and would wear the necessary protective clothing (lab coats, gloves, goggles, etc.).??

Service Events

Family Reading Night

Date: 2017-11-09
Location: Monmouth Public Library
Type: Outreach/Service to University
Category: Service
Audience(s): Local Elementary School
Local Middle School
My Student Chapter
NCW/Mole Day/CCED: N/A
Number of People Served (Audience): 30
Number of ACS Student/Chapter Members: 7
Number of Non-ACS Chapter Members: 7
Number of Faculty: 1

Description: ACS student chapter members helped read to students of the local elementary school and used this opportunity to teach students about chemistry!

Observe the Moon

Date: 2017-10-28
Location: MC Observatory/CSB
Type: Outreach/Service to University
Category: Service
Audience(s): General Community
My Student Chapter
My University/Department
NCW/Mole Day/CCED: N/A
Number of People Served (Audience): 50
Number of ACS Student/Chapter Members: 5
Number of Non-ACS Chapter Members: 5
Number of Faculty: 3

Description: Monmouth College Physics department opens up their observatory on National Observe the Moon night to teach everyone about the astrophysics, astronomy, to view the moon and other celestial beings, and most importantly to have fun! We assisted the Physics department with this event by assisting with tours, telescope operation, and demonstrations/activities.

Opioids and Addiction Event

Date: 2018-02-28
Location: MC Pattee Auditorium
Type: Outreach/Service to Community
Category: Service
Audience(s): General Community
My Student Chapter
My University/Department
NCW/Mole Day/CCED: N/A
Number of People Served (Audience): 50
Number of ACS Student/Chapter Members: 10
Number of Non-ACS Chapter Members: 30
Number of Faculty: 2

Description: We participated in the Opioids and Addiction webinar and invited people from the local section to come out to Monmouth College to learn about the underlying biochemistry of addiction and the societal impact of the opioid epidemic. This included bringing out members of other student organizations and was open to all of campus, including the Pre-Health Society, and a variety of Biochemistry/Chemistry, Psychology, Biology, and Biopsychology classes.

Periodic Table Event

Date: 2018-01-15
Location: MC Nutrition Lab
Type: Outreach/Service to University
Category: Service
Audience(s): My Student Chapter
My University/Department
NCW/Mole Day/CCED: N/A
Number of People Served (Audience): 40
Number of ACS Student/Chapter Members: 10
Number of Non-ACS Chapter Members: 25
Number of Faculty: 2

Description: We hosted our first meeting of the spring semester to talk to our members about a new project in which we would be covering an entire hallway of the Chemistry department with a laser etched periodic table of elements. This was done in collaboration with the Chemistry department.

Professional Development

*Which professional development activities did you find most effective for your chapter and why? (Professional development activities include attending scientific meetings, hosting speakers, going on field trips or tours, etc.)**

The professional development activities that are most effective are those that involve field trips or webinars (again with refreshments). The field trips are particularly interesting to people because it gives them the ability to explore an area that they may not be familiar with. Additionally, the webinars are particularly effective because this provides expert insight on the things that people with chemical education are able to do with their experiences, as well as providing the ability to network with others that may have similar interests.??

*What challenges did you encounter attending or planning professional development events and how do you plan on addressing these issues in the future?**

The biggest issue would be getting speakers to come out to campus. We plan on addressing this issue by contacting speakers over the summer, specifically alumni that would be more willing to come out to campus, so that they are given a significant amount of notice about our intentions and ideally will be more likely to come on out to campus. Additionally, this will give us the ability to better promote the event and work around the visitor's schedule.??

*How were your professional development events promoted, and were your promotion methods effective? Why or why not?**

Our professional development events were promoted via email, word of mouth, and posters. These were effective promotion methods as we were able to draw in new audiences for these events, which is always a great thing to see. We will in the future try to promote these events with much more notice as even with the multi-faceted promotion approach, we would occasionally hear that some people were not aware of the events...

Professional Development Events

Brewery Tour

Date: 2018-04-16
Location: Monmouth, Denovo Brewery
Type: Attending Tour/Field Trip
Category: Professional Development
Audience(s): My Student Chapter
NCW/Mole Day/CCED: N/A
Number of People Served (Audience): 14
Number of ACS Student/Chapter Members: 4
Number of Non-ACS Chapter Members: 9
Number of Faculty: 1

Description: Students attended a tour of a local brewery that takes a unique approach to the brewing process by emphasizing the underlying chemical processes that are responsible for what makes a good brew. Additionally, this brewery has implemented a variety of computer micro controllers for automating their brewing process and quality assurance needs, which led to an interesting conversation about the use of computer micro controllers for improving scientific methods.

Chemistry Rocks! PIB Webinar

Date: 2017-10-24
Location: MC CSB
Type: Attending Presentation/Speaker
Category: Professional Development
Audience(s): General Community
My Student Chapter
My University/Department
NCW/Mole Day/CCED: NCW
Number of People Served (Audience): 47
Number of ACS Student/Chapter Members: 10
Number of Non-ACS Chapter Members: 20
Number of Faculty: 2

Description: We participated and hosted a location for observing the NCW Chemistry Rocks! webinar as part of the PIB program. For this event we provided snacks and participated in the webinar, by learning about geochemistry and talked a lot about the environmental considerations that need to be made whenever doing chemistry or industrial geochemistry (fabrication of diamond/synthetic geodes).

REUs, Chemistry Research, and Volcanic Eruptions

Date: 2017-10-26
Location: MC Nutrition Lab
Type: Hosting Presentation/Speaker
Category: Professional Development
Audience(s): My Student Chapter
NCW/Mole Day/CCED: NCW
Number of People Served (Audience): 18
Number of ACS Student/Chapter Members: 4
Number of Non-ACS Chapter Members: 14
Number of Faculty: 0

Description: At this event, we had a variety of students from various departments come and talk to group members about the process of applying for REUs, writing a good personal statement, and how to choose REUs to apply for. Additionally, we discussed the current state of chemistry research done on our campus and how students can get involved. Finally, as this was part of the Chemistry Rocks! NCW, we recorded slow motion videos of eruptions done with the volcanoes that we made earlier in the week.

Upward Bound Event

Date: 2018-04-11
Location: MC CSB
Type: Hosting and Attending Tour/Field Trip
Category: Professional Development
Audience(s): Local High School
My Student Chapter
NCW/Mole Day/CCED: N/A
Number of People Served (Audience): 40
Number of ACS Student/Chapter Members: 3
Number of Non-ACS Chapter Members: 5
Number of Faculty: 1

Description: We assisted Dr. Brad Sturgeon in this program and hosted a variety of local high school students that are participants in the Upward Bound program. During this event, we showed off a lot of the unique facilities that our chemistry department has and helped encourage these students to pursue education in STEM areas by illustrating just how exciting and awesome science can be. These activities included showing off the 3D printers, a drone demonstration, laser engraver demonstration, and some other tours of the facility. We also promoted the environmental conscious perspective by explaining the advances made in technology and how these can be used to better monitor the environment, especially with the drone.

Chapter Development

*How did your chapter activities impact recruitment and retention for your chapter?**

We impacted recruitment by hosting a table at the campus sponsored involvement fair. This is a fair where all of the student organizations on campus are able to talk to new/incoming students about their organizations and what they are all about. This gave us the ability to interact with many of the new students on campus and we gained the interest of 40 new students, most of which were inattendance at our first general meeting. We were able to really catch everybody's attention with our demonstrations, which drew a lot of people in both new and returning students. This gave us the ability to really recruit and appeal to a variety of different students. We focused on retention by frequently surveying our members for what they would like to see throughout the year or what they would like to do more of at our meetings. This seemed to be an effective solution because we did not lose any members.

*Which events are the most successful for your chapter and why?**

The events that are most successful for our chapter are the events that provide refreshments or involve demonstrations. This is because college students are always more willing to interact with chemistry when there is food or interesting stuff going on. This means that we would always try to do some kind of demonstration with our events and always focus on making things as interesting as possible.??

*What are your greatest challenges when trying to plan events, and how do you overcome them?**

The greatest challenge with planning events is trying to work around everybody's schedules. There are always exams going on, which have a strong impact on the attendance at meetings, and since many of the members are taking the same classes, the attendance would dramatically decrease the night before an exam. The best way of overcoming this issue was by sending surveys to the members or by asking everybody what their availability was so that we could plan events that were accessible and nonintrusive with respect to the other important events going on academically or on campus.??

*Describe how the chapter conducted executive and/or general meetings for business and planning. Specify frequency,attendance, delegation of tasks, role of advisor.**

We had executive meetings every other week and would have general meetings every other week. This means that we would have a meeting every week, with alternating executive/general meetings. The attendance was consistent at every meeting. As always, the attendance before large exams would decrease, but there would also occasionally be new faces, which is always welcomed. The delegation of tasks was done as an executive unit. President would delegate tasks if there wasn't any specific preference found amongst the executive members, but otherwise the delegation was based on preference/volunteering. The advisor would occasionally make sure that we did not need any assistance or direct supervision at events.??

Chapter Development Events

Coffee and Donuts study Session

Date: 2018-05-03
Location: MC Nutrition Lab
Type: Social
Category: Chapter Development
Audience(s): My Student Chapter
My University/Department
NCW/Mole Day/CCED: N/A
Number of People Served (Audience): 30
Number of ACS Student/Chapter Members: 10
Number of Non-ACS Chapter Members: 30
Number of Faculty: 4

Description: We provided coffee and donuts during finals week to all students who needed to take a break from studying or finals or just to change their study environment. There were a variety of study tables set up.

Coffee and Donuts Study Session

Date: 2017-12-11
Location: MC Nutrition Lab
Type: Social
Category: Chapter Development
Audience(s): My Student Chapter
NCW/Mole Day/CCED: N/A
Number of People Served (Audience): 50
Number of ACS Student/Chapter Members: 10
Number of Non-ACS Chapter Members: 24
Number of Faculty: 4

Description: This event was sponsored by the ACS and was an open event for members to come out and take a break from finals to enjoy some coffee and donuts. There were a variety of different study tables set up and lots of coffee and donuts provided.

Demonstration Day

Date: 2017-10-20
Location: MC CSB
Type: Social
Category: Chapter Development
Audience(s): My Student Chapter
My University/Department
NCW/Mole Day/CCED: N/A
Number of People Served (Audience): 40
Number of ACS Student/Chapter Members: 10
Number of Non-ACS Chapter Members: 10
Number of Faculty: 2

Description: We did a variety of chemical demonstrations and discussed the environmental implications of explosives/fireworks as well as the safety and considerations that need to be made in order to effectively do good demonstrations.

Edible Rock Candy, Pop Rocks and Coke Event!

Date: 2017-10-23
Location: MC CSB
Type: Social
Category: Chapter Development
Audience(s): My Student Chapter
My University/Department
NCW/Mole Day/CCED: NCW
Number of People Served (Audience): 35
Number of ACS Student/Chapter Members: 10
Number of Non-ACS Chapter Members: 20
Number of Faculty: 0

Description: For this event, we made edible rock candy and observed the reaction of pop rocks candy with a variety of different liquids/sodas. We discussed the underlying chemistry of these things and also talked about crystallization processes.

Flask-o-lanterns

Date: 2017-10-05
Location: Nutrition Lab
Type: Social
Category: Chapter Development
Audience(s): My Student Chapter
NCW/Mole Day/CCED: N/A
Number of People Served (Audience): 25
Number of ACS Student/Chapter Members: 10
Number of Non-ACS Chapter Members: 15
Number of Faculty: 1

Description: We used a variety of old boiling flasks to create fun and festive flask-o-lanterns by designing and painting these old boiling flasks.

General Meeting

Date: 2017-09-07
Location: Nutrition Lab - Monmouth College
Type: Chapter Business Function/Fundraising
Category: Chapter Development
Audience(s): My Student Chapter
NCW/Mole Day/CCED: N/A
Number of People Served (Audience): 40
Number of ACS Student/Chapter Members: 10
Number of Non-ACS Chapter Members: 15
Number of Faculty: 1

Description: First general meeting. Continued to hold general meetings every other week from here to Finals week.

Involvement Fair

Date: 2017-08-18
Location: Monmouth College (MC)
Type: Social
Category: Chapter Development
Audience(s): My Student Chapter
My University/Department
NCW/Mole Day/CCED: N/A
Number of People Served (Audience): 100
Number of ACS Student/Chapter Members: 10
Number of Non-ACS Chapter Members: 20
Number of Faculty: 0

Description: We hosted a booth at the College's involvement fair, an event in which all student organizations on campus get to show what they are all about and teach new/incoming students about their organization's goals and purpose. We did a variety of chemical demonstrations and gained a lot of new members from this... Specifically, we did a calcium carbide cannon demonstration that literally allowed us to kick off the year for ACS with a BANG!

Liquid Nitrogen Ice Cream

Date: 2018-04-07
Location: MC Nutrition Lab
Type: Social
Category: Chapter Development
Audience(s): My Student Chapter
NCW/Mole Day/CCED: N/A
Number of People Served (Audience): 30
Number of ACS Student/Chapter Members: 10
Number of Non-ACS Chapter Members: 30
Number of Faculty: 1

Description: We made liquid nitrogen ice cream and enjoyed some discussion about the popular uses of liquid nitrogen in industry.

Make your own geode!

Date: 2017-10-27
Location: MC CSB
Type: Social
Category: Chapter Development
Audience(s): My Student Chapter
NCW/Mole Day/CCED: NCW
Number of People Served (Audience): 32
Number of ACS Student/Chapter Members: 10
Number of Non-ACS Chapter Members: 20
Number of Faculty: 0

Description: For this event, we made our own borax geodes and volcanoes in celebration of National Chemistry week. For this event, we discussed the process of geode formation in nature and discussed the chemical reactions that allowed us to make our very own borax geodes!

Budget

*Please provide a budget narrative to accompany your budget sheet and include information such as:What is your primary or most effective form of fundraising and why?How did fundraising help members develop professional experience (sales skills, grant writing, etc.)?Did you have enough money to accomplish your goals for the year?**

Our primary form of fundraising is selling laboratory notebooks and safety goggles. Fundraising allowed our members to develop sales skills by ensuring students a better deal from us than from the bookstore on lab notebooks and goggles. Financial planning skills were also developed, as the events for the rest of the semesters were planned based on the revenue from the sales. Aside from selling notebooks, we were able to obtain a grant through our student government to fund our laser etch periodic table. The periodic table is a large project we intend on using to help members develop instrumental skills by using our laser etcher for the elements, as well as use as a means on recruiting new members. From the two sources of income, we were able to plan a successful National Chemistry week and host a couple webinars.

Green Chemistry

*Please provide a detailed summary of a minimum of three green chemistry activities, including a two to three sentence explanation of why you think each activity qualifies as green chemistry.**

Our Upward Bound Event was done to raise awareness about the importance of science in our society and to encourage underexposed high school students to conscious chemistry. During this event we hosted a discussion about the environmental considerations to be aware of during creation of things and the use of new technology for environmental monitoring. This opened up the discussion to our drone demonstrations and the use of drones for collecting environmental/atmospheric data when coupled with computer microcontrollers. This is clearly green chemistry as we discussed the environmental considerations to make when creating new things, which directly relates to new industrial processes, and also the use of new technologies for better understanding the current state of our environment.??The NCW Chemistry Rocks! webinar was an open discussion of the environment and geochemistry. After the event, we discussed the user of renewable energy in our society and the feasability of its implementation over the next few years. We spoke with environmental science majors about the applications of chemistry to enhancing these renewable energy sources as well as the chemical processes that are involved in the major environmental disasters/hazards and climate change that we are all dealing with today.????During our discussion of demonstrations, we thoroughly talked about the environmental considerations to make so that we are not disposing of chemicals from our demonstrations in the environment and inadvertently having a negative impact on the delicate ecosystems around us. This also led to a discussion of the environmental impact of detonation demonstrations, such as in fireworks displays.??

Green Chemistry Events

Opioids and Addiction Event

Date: 2018-02-28
Location: MC Pattee Auditorium
Type: Outreach/Service to Community
Category: Service
Audience(s): General Community
My Student Chapter
My University/Department
NCW/Mole Day/CCED: N/A
Number of People Served (Audience): 50
Number of ACS Student/Chapter Members: 10
Number of Non-ACS Chapter Members: 30
Number of Faculty: 2

Description: We participated in the Opioids and Addiction webinar and invited people from the local section to come out to Monmouth College to learn about the underlying biochemistry of addiction and the societal impact of the opioid epidemic. This included bringing out members of other student organizations and was open to all of campus, including the Pre-Health Society, and a variety of Biochemistry/Chemistry, Psychology, Biology, and Biopsychology classes.

Chemistry Rocks! PIB Webinar

Date: 2017-10-24
Location: MC CSB
Type: Attending Presentation/Speaker
Category: Professional Development
Audience(s): General Community
My Student Chapter
My University/Department
NCW/Mole Day/CCED: NCW
Number of People Served (Audience): 47
Number of ACS Student/Chapter Members: 10
Number of Non-ACS Chapter Members: 20
Number of Faculty: 2

Description: We participated and hosted a location for observing the NCW Chemistry Rocks! webinar as part of the PIB program. For this event we provided snacks and participated in the webinar, by learning about geochemistry and talked a lot about the environmental considerations that need to be made whenever doing chemistry or industrial geochemistry (fabrication of diamond/synthetic geodes).

Upward Bound Event

Date: 2018-04-11
Location: MC CSB
Type: Hosting and Attending Tour/Field Trip
Category: Professional Development
Audience(s): Local High School
My Student Chapter
NCW/Mole Day/CCED: N/A
Number of People Served (Audience): 40
Number of ACS Student/Chapter Members: 3
Number of Non-ACS Chapter Members: 5
Number of Faculty: 1

Description: We assisted Dr. Brad Sturgeon in this program and hosted a variety of local high school students that are participants in the Upward Bound program. During this event, we showed off a lot of the unique facilities that our chemistry department has and helped encourage these students to pursue education in STEM areas by illustrating just how exciting and awesome science can be. These activities included showing off the 3D printers, a drone demonstration, laser engraver demonstration, and some other tours of the facility. We also promoted the environmental conscious perspective by explaining the advances made in technology and how these can be used to better monitor the environment, especially with the drone.

Demonstration Day

Date: 2017-10-20
Location: MC CSB
Type: Social
Category: Chapter Development
Audience(s): My Student Chapter
My University/Department
NCW/Mole Day/CCED: N/A
Number of People Served (Audience): 40
Number of ACS Student/Chapter Members: 10
Number of Non-ACS Chapter Members: 10
Number of Faculty: 2

Description: We did a variety of chemical demonstrations and discussed the environmental implications of explosives/fireworks as well as the safety and considerations that need to be made in order to effectively do good demonstrations.