

Nuclear Science Merit Badge Workshop Information

General Details

Workshops are held on the University of Wisconsin-Madison campus by volunteers from the UW-American Nuclear Society. The UW-ANS holds approximately six workshops per year with each limited to 60 Scouts. Well over 1500 Scouts have completed their nuclear science merit badge requirements at the UW-ANS workshops.

Registration

Registration is completed online on the www.atomicbadger.org/boyscouts webpage. One person should register a group (i.e. one adult can register all participating Scouts and adults from their troop, instead of having each individual person fill out the form). We ask that scouts are in at least 7th grade or higher. Each workshop is limited to 65 scouts and spots usually fill quickly. After filling out the registration form, you will receive an email 1-2 days afterward indicating whether or not your registration was successful. If you do not receive an email in ~3 days, it is either because I did not receive your registration, I'm on a trip and don't have internet access for a few days, or you did not provide an email address. If this occurs, send an email to scouts@atomicbadger.org and I'll respond as soon as possible. The adult registering will receive updates/reminder email as the workshop approaches.

Directions

The address and driving directions are on the www.atomicbadger.org/boyscouts webpage. The workshop is located at 1550 Engineering Drive, Madison, WI 53706. Enter the Engineering Centers Building (ECB) and go down the first hall to the Tong Auditorium.

Time

The workshop content will start at 10:00 a.m. with registration (fee and paperwork) occurring beforehand. Please plan to arrive around 9:40. The workshops end around 4:30.

Activities

During the workshop the Boy Scouts complete all the requirements for the nuclear science merit badge. Scouts complete some requirements, such as definitions before the workshop through 'homework'. A typical schedule of events is provided below. Scouts are to bring their own blue cards, we have none.

Homework

Scouts are to complete the homework online following the link on our home page at least 3 days before the workshop. It is highly suggested the Scouts first print off the worksheet and fill it in before submitting their answers online. This perhaps might be a good project for a scout meeting. These prerequisites take time to complete, it's not advised to wait until the last few days to try to complete them.

It is recommended that the scouts use the BSA Nuclear Science merit badge handbook as their primary resource. Other sources are encouraged, but please remind your scouts that copying directly from any source is plagiarism!

Supervision

We ask one adult attend per 4-5 scouts. Due to capacity limits of the main meeting room, we ask that you try to limit the number of adults (i.e. please don't register 4 adults for 2 scouts).

Fee

There is an \$11 registration fee per scout. These funds support materials/equipment and volunteer lunches for the event and also fund activities for our student section. The fee is collected at the beginning of the workshop.

UW Reactor Tour

The UW research reactor is not always available for tours. It is possible the reactor will not be available for workshop tours. If we cannot tour the reactor, the requirements will be fulfilled during the opening or lunch and we will instead try to tour our Pegasus fusion facility.

**** For the reactor tour, all adults must have a government issued photo ID. This is a government mandated security protocol and no exceptions will be made. Additionally, only the adults who were registered beforehand are allowed on the tour (i.e. **no last minute additions or swapping of adults for the tour**). Scouts do not need a photo ID. All Scouts must know and will write down their home address (yes, we've had Scouts not know where they live...). No cameras will be allowed on the reactor tour. ****

Lunch

Participants are to bring a sack lunch with them. There are limited vending machines in the building. There may be science demonstrations during lunch or nuclear theme movies/animations shown.

Questions, Comments, & Concerns

At the end of the workshop we will distribute questionnaires/surveys to help us assess the workshop. If there are questions or concerns before the workshop, please contact the UW-ANS Boy Scout Chair (scouts@atomicbadger.org)

What about Girl Scout workshops?

These workshops are held less frequently, usually by the Women In Nuclear (WIN) student organization. The UW-ANS Boy Scouts Chair (scouts@atomicbadger.org) may be able to point you to the contact person.

A typical workshop time line of events

9:40-10:00 - Registration fee and paperwork

10:00-10:55 - Introduction

- Discuss day and some nuclear science topics
- Build model of atoms
- Draw radiation hazard sign

11:00-11:45 Cloud Chambers

- See the movement of alpha particles
- Skittle game

11:50-12:35 Nuclear Science Careers/ Applications discussion

12:40-1:35 Lunch

- Possible science demonstrations or videos

1:40-2:25 UW Reactor Tour

2:30-3:15 IEC Tour

3:20-4:05 Radiation detector

- Time, distance, shielding experiments

4:10-4:30 Closing

Checklist for Workshop

Scouts:

- ✓ Do homework and submit online at least 3 days before workshop
- ✓ Bring \$11 registration fee
- ✓ Bring Sack lunch
- ✓ Bring a Merit Badge Blue Card
- ✓ Pen or Pencil to write with

Adults:

- ✓ Bring **PHOTO ID** for the Reactor Tour
- ✓ Bring a Sack Lunch
- ✓ Print out this information and driving directions