



## NATIONAL FEDERATION OF THE BLIND ENGINEERING QUOTIENT (NFB EQ) AGENDA

June 16-22  
Baltimore, Maryland

NFB EQ is a program of the National Center for Blind Youth in Science, an initiative of the National Federation of the Blind. This work is supported by the National Science Foundation under Grant No.1712887.

### SUNDAY, JUNE 16

12:00–5:00 PM **Participant Arrival** .....

If you are arriving by plane or train, you will be picked up at the airport or train station by NFB staff and transported to the NFB Jernigan Institute.

If you are arriving by car, you should arrive at the NFB Jernigan Institute no later than 1:00 p.m.

200 East Wells Street  
Baltimore, Maryland 21230

Once you arrive you will unpack, get settled into your rooms, and mingle with fellow participants until organized activities begin.

3:00-6:00 PM **A Creative Introduction**, Lunch Room .....

You are invited to participate in this optional drop-in session once you get unpacked. In this creative expression activity you will be asked to design a piece of 3D art that tells NFB EQ participants and staff something about you.

5:00-7:00 PM **Dinner**, Fourth Floor Training Lab .....

7:00-8:00 PM

**Engineering Challenge and Introductions**, .....  
Members Hall Northeast

In the first activity of the week, you will conquer an engineering challenge while getting to know the other participants.

9:00-10:00 PM

**Free Time**, Harbor Room .....

Hang out with fellow participants in the Harbor Room or take advantage of some quiet time in your dorm room.

10:00 PM

**Room Check**, Dorm Rooms .....

At this time, all participants are expected to be in their assigned bedrooms.

## MONDAY, JUNE 17

7:00-8:00 AM

**Breakfast**, Fourth Floor Training Lab .....

8:00-8:30 AM

**NFB EQ Program Kick-Off**, NFB of Utah Auditorium .....

Welcoming remarks from leaders of the National Federation of the Blind.

8:30 AM-12:30 PM

**Concurrent Sessions Rounds 1 and 2** .....

Each session will last two hours. You will rotate through the sessions in a group of ten. You will attend two sessions before lunch and one session after lunch.

**Session 1: Introduction to Drawing**, Members Hall Southwest

Prior to venturing into the drafting and technical drawing that is used in engineering, you must have a solid foundation in general drawing principles. No matter your skill level, this session will give you the opportunity to hone your drawing skills so that you are ready for the drafting you will need to do later in the week.

**Session 2: Engineering 101**, Members Hall Northwest

What is engineering anyway? Learn about a variety of engineering fields and disciplines and how engineering takes scientific inquiry to the next level.

**Session 3: A Place of My Own**, Members Hall Southeast

What if you could design your very own hangout, private retreat, or studio? Just how would you want it to be? Get ready, because now is your chance! After getting information about your project for the week and the expected deliverables, you will get the chance to jump right in and start designing.

12:30-1:30 PM

**Lunch and Break**, Riverside Park .....

Weather permitting; you will enjoy lunch in the large city park adjacent to the NFB Jernigan Institute.

1:30-3:30 PM

**Concurrent Sessions Round 3** .....

3:30-4:00 PM

**Blind Engineers #1**, NFB of Utah Auditorium .....

Talk to blind engineers who work in a variety of disciplines and industries about the work that they do. Learn what alternative techniques they use to accomplish their work as blind people.

4:00-5:30 PM

**Intermediate Drawing Part 1**, Members Hall Northeast .....

Building on what you learned Monday morning, this session will introduce you to new and more advanced drawing and drafting tools and techniques.

5:30-6:30 PM

**Dinner**, Fourth Floor Training Lab .....

6:30-8:30 PM

**Recreation** .....

Choose from one of the following:

**Jam Session and Games**, Lunch Room

Bring your own instrument (BYOI) and enjoy an evening of impromptu music making with fellow participants. Music lovers

who are not musicians are also welcome to hang out and play accessible board games.

**Cardboard Creation and Construction,**

Jacobus tenBroek Library

What would you do with a massive pile of cardboard? Would you make a sculpture, design some furniture, create a cardboard arcade, or something else entirely?

8:30-10:00 PM

**Free Time,** Harbor Room .....

Hang out with fellow participants in the Harbor Room or take advantage of some quiet time in your dorm room.

10:00 PM

**Room Check,** Dorm Rooms .....

At this time, all participants are expected to be in their assigned bedrooms.

**TUESDAY, JUNE 18**

7:00-8:00 AM

**Breakfast,** Fourth Floor Training Lab .....

8:00-9:00 AM

**Intermediate Drawing Part 2,** Members Hall Northeast .....

Building on what you learned Monday, this session will introduce you to new and more advanced drawing and drafting tools and techniques.

9:00 AM-12:30 PM

**Concurrent Sessions** .....

Each session will last one hour and forty-five minutes. You will rotate through the sessions in a group of fifteen.

**Session 1: Engineering Drafting and Multiview Drawings,**  
Members Hall Southwest

Drawings are a key vehicle that engineers use to communicate their designs to others. In this session you will learn how to interpret and develop multiview drawings, one type of drawing used by engineers.

**Session 2: Woodworking and Model Building 101,**  
Members Hall Southeast

This session will give you the opportunity to hone your woodworking skills and get acquainted with the tools and techniques that you will use to construct your model, a component of your NFB EQ project.

12:30-1:00 PM      **Lunch and Break,** Fourth Floor Training Lab .....

1:00-4:30 PM      **Field Trip to Jerusalem Mill** .....

Visit a historic mill to learn more about post and beam construction techniques, particularly how and why this technique was a go-to in decades past.

4:30-8:00 PM      **Swimming and Cookout,** Gunpowder Falls State Park .....

Take a dip in the Gunpowder River, hang out on the beach, and enjoy a good old American cookout!

8:00-9:00 PM      **Travel Back to NFB** .....

9:00-10:00 PM      **Free Time,** Harbor Room .....

Hang out with fellow participants in the Harbor Room or take advantage of some quiet time in your dorm room.

10:00 PM      **Room Check,** Dorm Rooms .....

At this time, all participants are expected to be in their assigned bedrooms.

**WEDNESDAY, JUNE 19**

7:00-8:00 AM      **Breakfast,** Fourth Floor Training Lab .....

8:00-9:30 AM      **Concurrent Sessions Round 1** .....

Each session will last ninety minutes. You will rotate through the sessions in a group of fifteen.

**Session 1: Forming Foundations**, Members Hall Southeast

In this session you will design and build the foundation of your structure.

**Session 2: Fun with Forces**, Members Hall Southwest

Explore forces in the real world; learn how forces can be represented using vectors and how you can compute forces by splitting them into their component parts.

9:30-10:30 AM

**Defining Disability**, Members Hall Northeast .....

What does the term "disability" mean? This may seem like a simple question, but there are numerous definitions and ways of thinking about disability. Which way makes the most sense to you? Share your ideas and learn from others.

10:30 AM-12:00 PM

**Concurrent Sessions Round 2** .....

12:00-1:00 PM

**Lunch and Break**, Fourth Floor Training Lab .....

1:00-3:30 PM

**Columns of Calculation**, .....

Members Hall Southwest and Southeast

Conduct experiments to determine the strength of the building materials. Identify where load-bearing columns should be placed in your structure.

3:30-4:30 PM

**Blind Engineers #2**, NFB of Utah Auditorium .....

Talk to blind engineers who work in a variety of disciplines and industries about the work that they do. Learn what alternative techniques they use to accomplish their work as blind people.

4:30-8:30 PM

**Sailing and Dinner**, Baltimore Inner Harbor .....

If you have never sailed, this is your chance to learn! Enjoy a hands-on evening of sailing around Baltimore's iconic Inner Harbor followed by dinner.

8:30-10:00 PM **Free Time**, Harbor Room .....

Hang out with fellow participants in the Harbor Room or take advantage of some quiet time in your dorm room.

10:00 PM **Room Check**, Dorm Rooms .....

At this time, all participants are expected to be in their assigned bedrooms.

**THURSDAY, JUNE 20**

7:00-8:00 AM **Breakfast**, Fourth Floor Training Lab .....

8:00-11:00 AM **The Roof System**, Members Hall Southeast and Southwest .....

Learn about roof systems and their component parts. Use this knowledge to construct your roof.

11:00 AM-12:30 PM **Concurrent Sessions Round 1** .....

Each session will last ninety minutes. You will rotate through the sessions in a group of ten.

**Session 1: Model Construction Workshop**, Members Hall Southeast

In this session you will finish constructing your scale model. Instructors will be on hand to answer questions, provide clarification, or work through any points of confusion.

**Session 2: Drafting Workshop**, Members Hall Southwest

In this session you will finish your drafting deliverables. Instructors will be on hand to answer questions, provide clarification, or work through any points of confusion

**Session 3: Forces in a Roof**, Members Hall Northwest

Identify all of the forces within your roof system and calculate their size. Ensure the forces throughout your structure are in equilibrium and that your structure is sound.

12:30-1:30 PM	<b>Lunch and Break</b> , Fourth Floor Training Lab .....
1:30-4:30 PM	<b>Concurrent Sessions Rounds 2 and 3</b> .....
4:30-5:00 PM	<b>Blind Engineers #3</b> , NFB of Utah Auditorium .....
	Talk to blind engineers who work in a variety of disciplines and industries about the work that they do. Learn what alternative techniques they use to accomplish their work as blind people.
5:00-7:00 PM	<b>Dinner Out</b> .....
	Enjoy dinner with fellow participants at one of the numerous restaurants in the neighborhood surrounding the NFB. Whether you prefer fast food, local food, or ethnic food there is something for you in our pedestrian friendly neighborhood. You will be given a stipend for dinner and NFB EQ staff will be on hand to show you the way to the restaurant of your choice.
7:00-10:00 PM	<b>Free Time</b> , Harbor Room .....
	Hang out with fellow participants in the Harbor Room or take advantage of some quiet time in your dorm room.
10:00 PM	<b>Room Check</b> , Dorm Rooms .....
	At this time, all participants are expected to be in their assigned bedrooms.

**FRIDAY, JUNE 21**

7:00-8:00 AM	<b>Breakfast</b> , Fourth Floor Training Lab .....
8:00-8:30 AM	<b>NFB EQ Expo Introduction</b> , Members Hall West .....
	In this session you will get more information about the NFB EQ Expo format and you will learn about the various options for presenting your work at the Expo.
8:30 AM-12:00 PM	<b>Portfolio Work and Expo Preparation Session</b> , .....
	Members Hall West
	Put the finishing touches on your portfolio and prepare your presentation for the NFB EQ Expo in the afternoon.



12:30-1:30 PM	<p><b>Working Lunch and Break</b>, Fourth Floor Training Lab .....          Grab a quick bite to eat and finish up any last minute items in preparation for the NFB EQ Expo.</p>
1:00-2:00 PM	<p><b>Tell Us What You Think</b>, Members Hall West .....          We want to learn from you! Share your ideas and feedback about NFB EQ so we can make the program an even better experience for future participants.</p>
2:00-3:00 PM	<p><b>NFB EQ Expo</b>, Members Hall East .....          Share your project with fellow participants, NFB members, and professionals from the local community.</p>
3:00-3:30 PM	<p><b>Pack Up</b>, Members Hall East .....          Pack up your project for the trip home.</p>
3:30-4:00 PM	<p><b>NFB EQ Closing</b>, NFB of Utah Auditorium .....          Closing remarks from leaders of the National Federation of the Blind.</p>
4:00-4:40 PM	<p><b>Travel to Patapsco Valley State Park</b> .....</p>
4:40-8:20 PM	<p><b>Party in the Park</b>, Patapsco Valley State Park .....          Enjoy an evening of fun in the great outdoors, play a pick-up game of beep baseball, go for a short hike, or lay low and listen to music.</p>
8:20-9:00 PM	<p><b>Travel back to NFB</b> .....</p>
9:00-10:00 PM	<p><b>Pack</b>, Dorm Rooms .....          Pack your suitcase and prepare for your trip home Saturday.</p>
10:00 PM	<p><b>Room Check</b>, Dorm Rooms .....          At this time, all participants are expected to be in their assigned bedrooms.</p>

## SATURDAY, JUNE 22

4:00-9:00 AM

### **Student departures** .....

Grab a bagged breakfast before hopping on your shuttle. Safe travels, everyone! If you are departing by car, you should be picked up no later than 8:30 a.m.