



March 2017

Dear Students, Parents, and Teachers/Advisors:

Congratulations on being selected to compete at the Connecticut Science & Engineering Fair. Enclosed is the Fair Week Schedule, Display Rules and a map of Quinnipiac University. Projects will be set-up in the Quinnipiac University Recreation Center complex. Project space has been preassigned so you must check-in to get your number. Check-in is 12:30 pm - 7:00 pm (starts at 11:30 am for Urban School Challenge), Tuesday, March 14. Setup takes about one hour. Parking is available in the lot adjacent to the Recreation Center.

Electric power will not be available for project operation and commercial equipment is not allowed as part of the display unless you are chosen as a finalist. Only limited electrical power will be available for preliminary judging interviews. Additional discussion on these fair procedures is provided in the attached display rules.

If you are unclear on any of the materials and are worried that you might have a problem, key people that will be able to help you are given below:

Registration	Wynn Müller	860-635-1139	registration@ctsciencefair.org
Display Rules and Safety	Bob Harris	203-457-1322	display@ctsciencefair.org

If you are chosen as a Finalist or Special Awards winner your attendance is mandatory:

Finalists- for Thursday Judging and Saturday Morning Finalist Awards;

Special Awards Winners- Saturday Morning Special Awards Ceremony

Absences for extraordinary circumstances will be considered if the written request is emailed to the Fair Director, **director@ctsciencefair.org** by no later than 6:00 pm Saturday, March 11.

FINALISTS AND SPECIAL AWARD WINNERS ARE POSTED AT www.ctsciencefair.org

Finalists will be posted on the fair's website by 5:30 pm Wednesday. **It is your responsibility to go to our website to see if you are Finalist.** If so, you must check-in on CSEF website so that we know that you got the word and will be present on Thursday morning. Check-in by 8:30 am.

Finalist Judging is Thursday from 8:30 am - 1:15 pm. *You must arrange to be picked up by your parents or teacher at this time.* Luncheon meal tickets will be provided for the Finalists for use in the Student Center Dining Room- just something to eat before going home. Lunch attendance is optional.

Finalist Awards Ceremony will be held in the Burt Kahn Court, Recreation Center, Saturday morning, 11:00 - 12:30. All Finalists are required to attend and must check-in on our website to confirm your attendance.

Special Award Winners will be posted on our website by 5:30 pm Thursday. **Winners** must confirm through our website that they will be present Saturday morning 9:00 - 10:30 for the Special Awards Ceremony.

Special Awards Ceremony will be held in in the Burt Kahn Court, Recreation Center, Saturday morning 9:00–10:30. Special Award winners are required to attend and must check-in on our website to confirm your attendance.

Public Viewing: Public- Thursday 2:00 - 7:30 pm and Friday 5:00 - 7:30 pm • *Sorry No School Groups Visits this year!*

Project Pickup: Friday 5:00 - 8:00 pm and Saturday 8:30 am - 1:00 pm. **Projects remaining after 1:00 pm Saturday will be discarded.**

We look forward to meeting you on registration day. See you at the fair. Good Luck!

For the 2017 Executive Committee

Bob Wisner
Fair Director

Wynn Müller
Registration Chair

For Weather Postponements:

Fair Week Phone: (203) 582-3361

www.ctsciencefair.org

Channel 3 WFSB-TV

director@ctsciencefair.org

registration@ctsciencefair.org

Web: www.ctsciencefair.org



www.ctsciencefair.org

MANDATORY ATTENDANCE

**To receive a T-shirt at project setup- anytime 12:30 pm - 7:30 pm
(11:30 am – 7:30 pm for Urban School Challenge), Tuesday, March 14
Plan on arriving no later than 6:30 pm. Doors close at 7:30 pm.**

If you are a Finalist- 8:30 am – 1:15 pm, Thursday, March 16

If you are a Special Awards Winner- 9:00 am – 10:30 am, Saturday, March 18

If you are a Finalist- 11:00 am – 12:30 pm, Saturday, March 18

If you are selected as a Finalist or Special Awards winner your attendance is mandatory at the functions described above. Failure to attend the Finalist or Special Awards functions will result in disqualification. Exceptions are granted for religious observance and special circumstances.

Exceptions for special circumstances will be considered if the written request is emailed to the Fair Director by no later than 6:00 pm, Saturday, March 11. Email to: director@ctsciencefair.org

Family vacations, previous commitments, and ski trips are **not** considered special circumstances. Religious observations and other major competitions are such circumstances but you must request an excused absence.

**FIND OUT IF YOU ARE A FINALIST OR
SPECIAL AWARDS WINNER**

AT

www.ctsciencefair.org

FINALISTS- After 5:30 pm Wednesday

SPECIAL AWARDS- After 5:30 pm Thursday

If you are a finalist or special award recipient

You must register on our website that you will attend!

www.ctsciencefair.org



www.ctsciencefair.org

March 2017

Dear Parent:

Congratulations on having your child selected to compete in the Connecticut Science & Engineering Fair. Please look over the materials that we have supplied and check your child's work. Take time to review your child's display to see if his or her research is adequately described. Review the rules and safety check list and make sure the display is in compliance. Be sure that materials extracted from the work of others has proper citation. This applies to text, charts, drawings, and photos.

All projects should include a report detailing the student's work. An abstract giving a short description of their work should have been submitted online through the CSEF website by March 1. Prior to the Fair judges begin reviewing the abstracts. First impressions are important!

Project Set-Up: 12:30 pm-7:30 pm Tuesday, March 14 (starts at 11:30 am for Urban School Challenge)- Doors close at 7:30 pm. Plan on arriving by no later than 6:30 pm. In the Quinnipiac University Recreation Center. Your child must check-in at registration in the Burt Kahn Court (gym). Setup takes about one hour. Parking is available in the lot adjacent to the recreation center complex. **Urban School Challenge Preliminary Judging-** All Urban School students will receive preliminary judging interviews at Project Set-Up.

Finalists and Special Awards Winners: Those chosen as finalists, (approximately 30 percent of the participants) will be interviewed Thursday by scientists, engineers, and educators. Finalists will be posted on the fair's website (www.ctsciencefair.org) by 5:30 pm Wednesday; Special Award winners will be posted by 5:30 pm Thursday. If selected as a finalist or special award winner your child must confirm through our website that they will be present for judging and awards.

Finalist Judging: 8:30 am - 1:15 pm Thursday- Finalist project numbers will be posted on the fair's website by 5:30 pm Wednesday. If your child is chosen as a finalist, notify his/her school of the absence on Thursday.

Finalist Awards Ceremony: Saturday 11:00 am - 12:30 pm. **Special Awards Ceremony:** Saturday 9:00 am - 10:30 am

Mandatory Attendance: If selected as a Finalist or Special Awards recipient attendance is required Saturday morning at the relevant Awards Ceremony. Excused absence for special circumstances will be considered if the request by 6:00 pm Saturday March 11 at director@ctsciencefair.org

Finalist Judging Hospitality Lounge: Thursday, 8:30 am - 1:00 pm, the Fair will host a hospitality lounge for parents and advisors who need a place to wait during Finalist Judging. It will be in the Student Center room SC119 adjacent to the Recreation Center. A presentation on the Fair's activities will be presented at approximately 11:00 am.

Lunch (attendance optional, no program planned) for the finalists, compliments of the fair is available in the Student Dining Room starting at 1:15 pm. Parents and advisors may join the students at their own expense. Parents/advisors should arrange a meeting place after judging.

Special Awards Ceremony will be held in the Recreation Center, Burt Kahn Court, Saturday 9:00 am - 10:30 am. Special Award Recipients will be posted on our website by 5:30 pm Thursday. Students must check our website to see if they are recipients and need to be present on Saturday.

Public Viewing: Public Viewing Thursday 2:00 - 7:30 pm and Friday 5:00 - 7:30 pm • ***Sorry No School Groups Visits this year!***

Project Pickup: Friday, 5:00 - 8:00 pm; and Saturday, 8:30 am - 1:00 pm. **Projects remaining after 1:00 pm on Saturday will be discarded.**

Your child has achieved a major milestone by being selected as a State Fair competitor.

Our best wishes for a rewarding experience.

A handwritten signature in blue ink that reads 'Bob Wisner'.

Bob Wisner
Fair Director
director@ctsciencefair.org

For Weather Postponements:
Fair Week Phone: (203) 582-3361
www.ctsciencefair.org
Channel 3 WFSB-TV

Web: www.ctsciencefair.org
Email: director@ctsciencefair.org

CSF Revised Feb. 2017

Display and Safety Regulations

Not Allowed At Project

1. Living organisms including plants, animals, microbes
2. Taxidermy specimens or parts
3. Preserved vertebrate or invertebrate animals
4. Human or animal food
5. Human/animal parts or body fluids (for example, blood, urine)
6. Plant materials (living, dead, or preserved) which are in their raw unprocessed, or non-manufactured state.
7. Laboratory/household chemicals including water (Exceptions: water integral to an enclosed apparatus; crystals grown by you, displayed in a sealed case, and removed after final judging)
8. All hazardous substances or devices (For example, poisons, drugs, controlled substances, firearms, weapons, ammunition, reloading devices, Class 3 and 4 lasers)
9. Dry ice or other sublimating solids
10. Sharp items (for example, syringes, needles, pipettes, knives)
11. Flames or highly flammable materials
12. Batteries with open-top cells
13. Awards, medals, business cards, flags, endorsements and/or acknowledgments (graphic or written) unless the item(s) are an integral part of the project
14. Photographs or other visual presentations depicting vertebrate animals in surgical techniques, dissections, necropsies, or other lab procedures
15. Active Internet or e-mail connections as part of displaying or operating the project at the CSEF.
16. Prior years' written material or visual depictions on the vertical display board.
17. Overlapping panels or pages on the backboard are not permitted. Supporting detailed information should be contained in a data book or as part of the research report.
18. Glass or glass objects unless deemed by the Display and Safety Committee to be an integral and necessary part of the project (Exception: glass that is an integral part of a commercial product such as a computer screen)
19. Any apparatus deemed unsafe by the Display & Safety Committee (for example, large vacuum tubes or dangerous ray-generating devices, empty tanks that previously contained combustible liquids or gases, pressurized tanks, etc.)

Only Table Top Displays are allowed. Maximum Size of Display

30 in. (76 cm) deep

48 in. (122 cm) wide

78 in. (198 cm) high from table

For Questions Regarding Display Rules

Contact Mr. Bob Harris

e-mail: display@ctsciencefair.org

Allowed at Project BUT with the Restrictions Indicated

1. Photographs and/or visual depictions if:
 - a. They are not deemed offensive or inappropriate by the Display and Safety Committee.
 - b. They have credit lines of origin ("Photograph taken by..." or Image taken from..."). If all photographs being displayed were taken by the participant or are from the same source, one credit line prominently and vertically displayed is sufficient.
 - c. They are from the Internet, magazines, newspapers, journals, etc., and credit lines are attached. (If all photographs/images are from the same source, one credit prominently and placed on the backboard is sufficient.)
 - d. They are photographs or visual depictions of the participant.
 - e. They are photographs of human subjects for which signed consent forms are at the project or in the booth.
2. Soil, sand, rock and/or waste samples only if permanently encased in a slab of plastic or a sealed container.
3. Any apparatus with unshielded belts, pulleys, chains, or moving parts with tension or pinch points may not be operated.
4. Class 2M lasers:
 - a) May be operated only by the fair participant.
 - b) May be operated only during finalist judging.
 - c) Must be labeled with a sign reading "**Laser Radiation: Do Not Stare Into Beam**"
 - d) Must have protective housing that prevents physical and visual access to beam.
 - e) Must be disconnected when not operating.
5. Class 3 and 4 lasers may not be operated.
6. Any apparatus producing temperatures that will cause physical burns must be adequately insulated and only operated during finalist judging..

Electrical Regulations

1. Bare wire and exposed knife switches may be used only in circuits of 12 volts or less.
2. All electrical connectors, wiring, switches, extension cords, fuses, etc. in high voltage circuits (over 12 volts) must be UL-listed and must be appropriate for the load and equipment. Connections must be soldered or made with UL-listed connectors. Wiring, switches, and metal parts must have adequate insulation and overcurrent safety devices (such as fuses) and must be inaccessible to anyone but the fair participant. Exposed electrical equipment or metal that is liable to be energized must be grounded or shielded with a grounded metal box or cage to prevent accidental contact. There must be an accessible, clearly visible on/off switch or other means of disconnect from the power source. Maximum is 500 watts, 120 volts A.C.
3. Finalists requiring 120 volt A.C. electrical power must provide a UL-listed 3-wire extension cord which is appropriate for the load and equipment.

MAGICAL, BUT REAL SCIENCE!

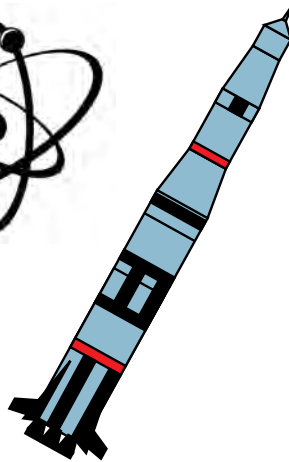
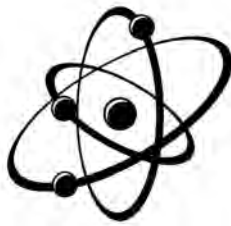
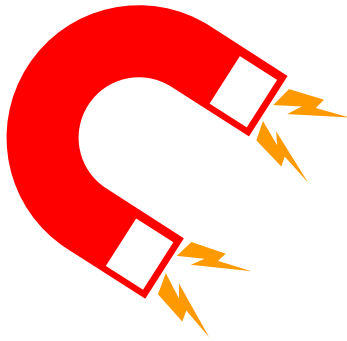
Physics Demonstrations

by Bob Erickson, George Vartenigian & Their Team

See The Demonstrations

After You Set-Up Your Project!

Demos "R" Us



Tuesday, March 14, 2017

During Set-Up Hours

Exhibit Hall

Quinnipiac University

In the physical world some things that happen often appear to be magical. Science provides the explanations-- there is no magic but a puzzle that keeps scientists busy understanding. Physics experiments in electricity, magnetism, heat, light, and mechanics experiments are amazing to see, but the fun is in understanding. Join Mr. Erickson and Mr. Vartenigian and see the sometimes hard to believe science in action. This "minds-on" show will challenge you and perhaps give you ideas for experiments of your own!

Robert V. Erickson spent his career assisting students in experimental procedures in the physics laboratories of the University of Connecticut. George Vartenigian, is a retired physics teacher from Norwich Free Academy. From their many years of physics teaching experience, Bob and George have picked their favorite demonstrations to produce an exciting one hour science adventure for middle and high school audiences.



69th Anniversary Year

www.ctsciencefair.org

69th Connecticut Science & Engineering Fair

Fair Week Schedule

March 14 - 18, 2017

Quinnipiac University, Mount Carmel Campus, Hamden
Open to students grades 7 through 12

Tuesday, March 14

12:30 pm - 7:00 pm	Student Check-In- Burt Kahn Court/Recreation Center
12:30 pm - 7:30 pm	Project Setup in Recreation Center - Doors close at 7:30 pm
11:30 am - 6:30 pm	Urban School Challenge- Preliminary Judging Interviews during Project Check-In (Schools must sign up in advance for the 11:30 am - 12:30 pm time slots)
1:00 pm - 5:00 pm	Science Demonstrations in Exhibit Hall

Wednesday, March 15 (Exhibitors not admitted)

7:30 am to 8:45 am	Judges Continental Breakfast
8:45 am to 9:00 am	Judges Briefing
9:00 am to 2:00 pm	Preliminary & Special Awards Judging
11:30 am to 12:30 pm	Judges Luncheon- Dance Studio, 2 nd floor Recreation Center
5:30 pm	Finalists names posted on Web

Thursday, March 16

7:30 am to 8:30 am	Judges Continental Breakfast
8:30 am to 8:45 am	Judges Briefing
8:30 am to 9:00 am	Finalist Check-In at Burt Kahn Court/Recreation Center
9:00 am to 1:15 pm	Finalist Judging
11:30 am to 1:30 pm	Judges Luncheon
1:15 pm to 2:15 pm	Finalist Lunch- Optional (Finalists may leave after judging.)
8:30 am to 1:00 pm	Parents/Advisors Hospitality Suite-Student Center SC119.
11:00 am to 11:30 am	Parents Briefing by CSEF Staff
2:00 pm to 7:30 pm	Public Viewing
5:30 pm	Special Awards Winners names posted on CSEF Web page

Friday, March 17

8:00 am to 5:00 pm	Fair Closed- No Public Viewing or School Visits!
5:00 pm to 7:30 pm	Public Viewing and Project Pickup

Saturday, March 18

8:30 am to 1:00 pm	Project Pickup (In Recreation Center- east end of building)
9:00 am to 10:30 am	Special Awards Ceremony
11:00 am to 12:30 pm	Finalist Awards Ceremony
12:30 pm	All Award Winners Posted on CSEF website

Parking- Use main entrance of campus on Mount Carmel Ave. Park in lot near Recreation Center.

Directions to Quinnipiac University: <http://www.quinnipiac.edu/about/visiting-quinnipiac/getting-to-campus>



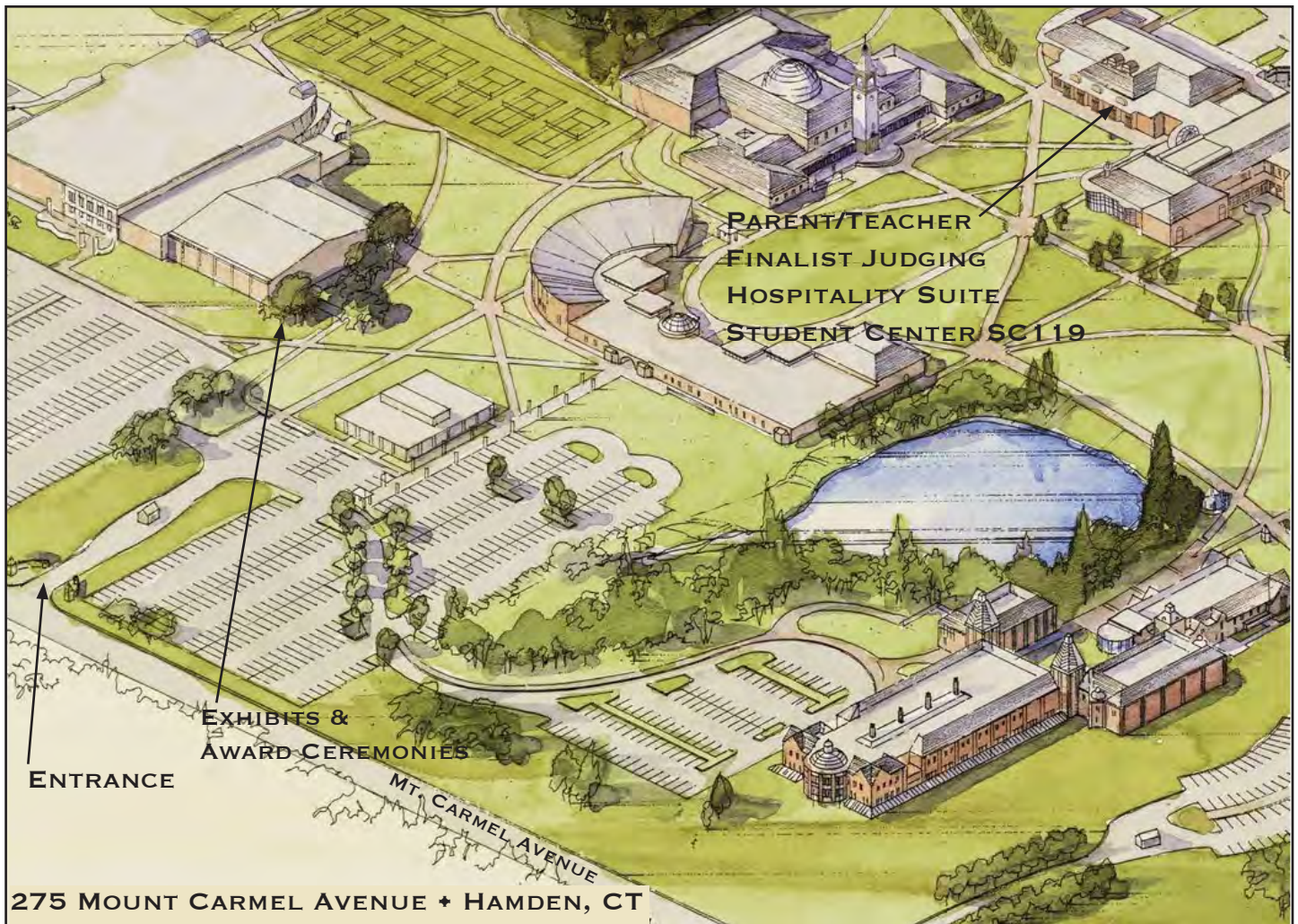
Project Registration Questions: 860-635-1139 • Email: registration@ctsciencefair.org

Fair Week Phone 203-582-3361

Fair Director: email: director@ctsciencefair.org

www.ctsciencefair.org





From Providence and east

Take I-95 to New Haven. Then take I-91 North to Exit 10 (Route 40). Follow Route 40 approximately three miles to its end (at Whitney Avenue). Turn right onto Whitney Avenue (Route 10) and proceed north for 1.4 miles. Turn right onto Mount Carmel Avenue and go 0.3 miles to campus.

From New York City and west

Take I-95 to New Haven. Then take I-91 North to Exit 10 (Route 40). Follow Route 40 approximately 3 miles to its end (at Whitney Avenue). Turn right onto Whitney Avenue (Route 10) and proceed north for 1.4 miles. Turn right onto Mount Carmel Avenue and go 0.3 miles to campus.

Alternately, you may take the Wilbur Cross (Merritt) Parkway (Route 15) to Exit 61. Turn right onto Whitney Avenue (Route 10) and proceed north 3 miles to Mount Carmel Avenue. Turn right onto Mount Carmel Avenue and go 0.3 miles to campus..

From Hartford and east

Take the Merritt Parkway (Route 15) to Exit 62. Turn right onto Whitney Avenue (Route 10) and proceed north 3 miles to Mount Carmel Avenue. Turn right onto Mount Carmel Avenue and go 0.3 miles to campus.

From Northern New Jersey

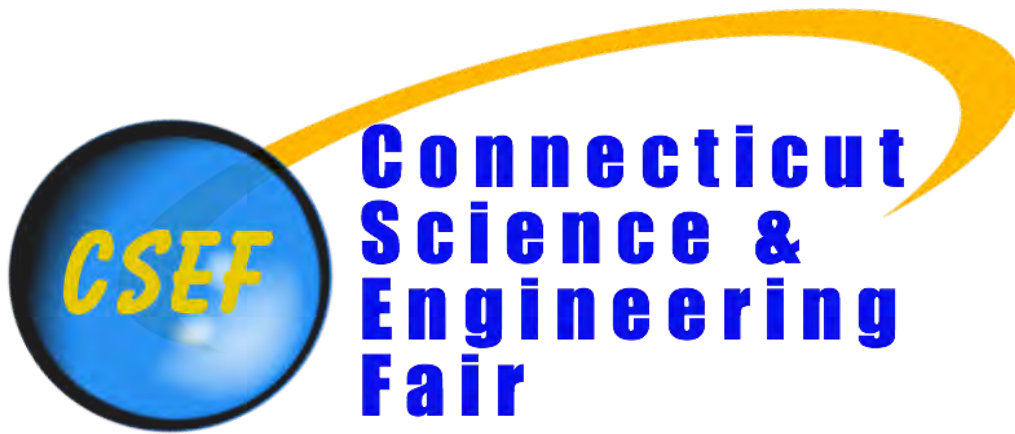
Follow Route 287 over Tappan Zee Bridge to Exit 8. Follow Route 287 to Merritt Parkway (Exit 9N). Take the Parkway (Route 15) to Exit 61. Turn right onto Whitney Avenue (Route 10) and proceed north 3 miles to Mount Carmel Avenue. Turn right onto Mount Carmel Avenue and go 0.3 miles to campus.

From Hartford, Boston, and Upper New England

Take I-91 South to Exit 10 (Route 40). Follow Route 40 approximately 3 miles to its end (at Whitney Avenue). Turn right onto Whitney Avenue (Route 10) and proceed north for 1.4 miles. Turn right onto Mount Carmel Avenue and go 0.3 miles to campus.

From western Connecticut and upper New York State

Take I-84 to Exit 26. At end of exit, bear right on Route 70 toward Cheshire. Continue on Route 70 to Route 10. Turn right on Route 10 and go about 7 miles to Mount Carmel Avenue. Turn left onto Mount Carmel Avenue and go 0.3 miles to campus.



Connecticut Science & Engineering Fair

Visit the Fair!

March 16-17, 2017



- Thursday, 2:00 - 7:30 pm - Public Viewing
- Friday, 5 - 7:30 pm - Public Viewing & Project Pickup

**Recreation Center
Quinnipiac University, Hamden**