



CONNECTIONS ENGINEERING OUTREACH at Queen's University

Queen's Summer Engineering Academy (QSEA)

**2024 Information Guide:
QSEA Senior (Grade 9-11) Programs**

Please note:

This guide contains important information for all QSEA Senior participants - those staying in residence and those commuting to Queen's campus daily.



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Thank you for choosing to participate in the Queen’s Summer Engineering Academy (QSEA) 2024.

We invite you to get involved, ask questions, and enjoy learning while you are here at Queen’s University. During the days, you’ll be focused on STEM-based learning on campus but in the evenings, you’ll be able to experience lots that historic Kingston has to offer in the summer!

If you have any questions, please feel free to contact us:

Cressana Williams-Massey	Phone: +1 613-533-6000 x79952
Smith Engineering at Queen’s University	Email: clwm@queensu.ca
Connections Engineering Outreach	Email: eng.connections@queensu.ca
Queen’s University, Kingston, ON K7L 3N6	Web: https://queensconnections.ca/

2024 Session Dates:

Dates	Course
July 7 – 12	QSEA Senior (Gr. 9 – 11): Engineering Innovative Pathways
July 14 – 19	QSEA Senior (Gr. 9 – 11): Engineering the Human Potential
July 21 – 26	QSEA Senior (Gr. 9 – 11): Engineering Fundamentals
July 28 – August 2	QSEA Senior (Gr. 9 – 11): Engineering Innovative Pathways
August 11 – 16	QSEA Senior (Gr. 9 – 11): Engineering Fundamentals

Please note: The first date listed for each course is the Sunday afternoon arrival for those staying in residence for the week. Sunday arrival is between 2:30-4:00pm. Daily QSEA programming begins on the Monday morning at 9:00am.

Courses:

Participants will be attending courses taught by Queen’s undergraduate and graduate engineering students, or staff affiliated with the Smith Engineering at Queen’s University. Instructors have worked hard to create courses that will engage participants and expand their academic experience. Participants may use state-of-the-art labs and use high-tech equipment; all will be challenged to think creatively or challenge their assumptions.

Specific tentative course content schedules are in the appendices of this document. Please keep in mind that Connections holds all rights to alter any plans and schedules are subject to change.

Daily QSEA Arrival and Departure Times & Locations (Commuters):

Arrival	Departure
8:45 AM (programming starts at 9:00 AM) Mitchell Hall 2 nd Floor, Room 235 69 Union Street West Kingston ON, K7L 2N9	4:00 (Mon-Thurs) 1:00 PM (Fri) Mitchell Hall 2 nd Floor, Room 235 69 Union Street West Kingston ON, K7L 2N9

A detailed campus map is available online at: <http://www.queensu.ca/campusmap>





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Sample Daily Schedule for Students Staying in Residence:

General Schedule for Senior Campers in Residence (Grades 9-11)										
Time	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday				
7:30 am - 8:00 am		Wake Up and Breakfast								
8:00 am - 8:30 am										
8:30 am - 9:00 am										
9:00 am - 9:30 am		Morning Classes					QSEA Cup			
9:30 am - 10:00 am										
10:00 am - 10:30 am										
10:30 am - 11:00 am										
11:00 am - 11:30 am										
11:30 am - 12:00 am		Lunch								
12:00 pm - 12:30 pm										
12:30 pm - 1:00 pm										
1:00 pm - 1:30 pm		Afternoon classes								
1:30 pm - 2:00 pm							Departure			
2:00 pm - 2:30 pm										
2:30 pm - 3:00 pm										
3:00 pm - 3:30 pm										
3:30 pm - 4:00 pm	Arrival at Residence									
4:00 pm - 4:30 pm										
4:30 pm - 5:00 pm	Open Time									
5:00 pm - 5:30 pm	Dinner									
5:30 pm - 6:00 pm										
6:00 pm - 6:30 pm	Evening Activity									
6:30 pm - 7:00 pm										
7:00 pm - 7:30 pm										
7:30 pm - 8:00 pm										
8:00 pm - 8:30 pm										
8:30 pm - 9:00 pm										
9:00 pm - 9:30 pm										
9:30 pm - 10:00 pm						Return to Residence and Lights Out at 11:00 pm				
10:00 pm - 10:30 pm										
10:30 pm - 11:00 pm										



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Drop-off and Pick-up for Residence Students:

Students **staying in residence** should be dropped off (or arrange to arrive) at the residence (Leggett Hall - 194 Stuart Street, Kingston, ON K7L 5V2) between 2:30 PM and 4:00 PM on the Sunday before your registered course and be picked up at the same location between 1:00 PM and 1:30 PM on Friday. For more information about the residence room, please check out:

<https://www.queensu.ca/residences/buildings/leggett>

Late Arrivals and Early Departures:

Any students who will be arriving late (after 4:00 pm for those checking into the residence on Sunday or after 9:00 am for those commuting daily) or leaving early must let the Connections team know as soon as possible so that alternate supervision arrangement can be made. Connections can help provide students leaving Kingston via public transportation with a taxi chit to the train or bus station.

Meals:

Queen's University is NOT a nut-free environment. As a courtesy to students with allergies, please refrain from bringing nut products to campus. The cafeteria will accommodate students based on the medical information provided in your online profile.

- **Students staying in residence:** Breakfast, lunch, and dinner are included in the program tuition and will be served in the cafeteria and students will have a wide range of foods from which to choose. Vegetarian and gluten-free options are available.
- **Students commuting:** Lunch is included in the program tuition and will be served in the cafeteria and students will have a range of foods from which to choose.

For more information or a list of ingredients or products used in the Leonard Hall cafeteria, please contact Event Services at event.services@queensu.ca

We recommend that students bring snacks with them if they want to eat outside of regular mealtimes. Vending machines are available around campus but only take debit and credit cards.

Code of Conduct:

All registrants have reviewed the [Code of Conduct](#) during the registration process and will be required to adhere to it during the entire program.

Drugs and Alcohol:

Connections QSEA students are not permitted to possess/consume drugs or alcohol. The Academy has a “Zero Tolerance” policy for drugs and alcohol and students found to violate this policy will be sent home immediately at their own expense.

Supervision:



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All Connections QSEA Student Supervisors are Queen's students who have been specifically selected for their enthusiasm for working with students. All of our student supervisors are trained in first aid. The first aid coordinators will also work closely with Campus Security to ensure the safety and well-being of students. All students will attend an orientation with their supervisor and group and be given a campus tour. During instructional time, supervision will be solely provided by Connections QSEA staff.

Outside of the QSEA daily programming times (9am-4pm), you can reach the front desk with Housing & Ancillary (Residence Chaperones) at 613-533-3183. They will connect you to the on-call residence supervisor.

Evening Activities and Supervision:

Trained staff and chaperones supervise all evening activities and stay with the students in residence. Once the students have finished the course at 4 pm for the day, they are given until 5:30 pm as their free time. The students are notified that they are to stay on Queen's campus and to check in at the residence after the course is finished to receive any information for the evening activity. At 5:30 pm the students will head over to Leggett Hall for dinner.

Please note, evening activities are reserved for those staying in residence and supervised by Housing & Ancillary chaperones.

After dinner, the students will participate in one of the following evening activities:

- Swimming at Tomlinson outdoor pool
- Amazing race on Queen's campus
- Tour of downtown Kingston with ice cream
- Escape room in downtown Kingston
- Indoor/outdoor activities
- Movie night in the auditorium

All of the activities are supervised and are done as a group (please note activities are subject to change and weather-dependant). We typically get back to the residence around 9:00 pm for the students to relax together or in their rooms. Around 10:30 pm, the students in the common room are asked to return to their rooms and head to bed. The residence chaperone staff will monitor the residence hallways periodically throughout the night to ensure student safety.

Residence Information:

Residence placements rooms are released upon arrival and will remain firm. All residence rooms will be single occupancy but will have a shared bathroom with one other student. Requests for a roommate (person sharing the bathroom) are not guaranteed but the staff will try our best to accommodate requests. Each evening, students must be in their rooms with lights out by 11:00 pm. Bedding and linens are provided but students are welcome to bring their own.

Some things that you may want to bring to the program:

- Clothing: appropriate clothes for the classroom (including labs, theaters, gyms, etc.) activities (dance, sports, etc.), and
- Toiletries (toothbrush, toothpaste, soap, shampoo, washcloth)



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outdoor walking and games. Closed-toe shoes and long pants are required in the labs and some activities.

- Writing tools (pencil case)
- Sunscreen
- Raincoat
- Sun-smart hat
- Water Bottle (that may be refilled)
- Camera
- Alarm clock
- Bathing suit & towel
- Ear plugs (for residence if you are a light sleeper)
- Snacks (not requiring fridge or microwave)
- Sunglasses
- Cell phone

Spending Money:

Students may want to bring additional money to purchase merchandise from the Campus Bookstore. Please note: all vending machines on Queen's campus are cashless and only accept debit or credit cards.

Cancellations and Refunds:

All registrants reviewed and accepted the terms and conditions of the [Cancellation & Refund Policy](#) when completing their registration. Any withdrawals must be made in writing and any refunds will be made per the policy.

Photography:

Occasionally photographs and filming will occur for use in marketing the Connections QSEA. As such, all registrants will be asked to review and accept the terms and conditions of a Photo Waiver as part of the registration package. If this is of concern, please contact Cressana Williams-Massey.

Special Accommodations:

Queen's University is committed to facilitating the integration of persons with disabilities into the University community. If you require any special accommodations to attend our programs, please contact Connections staff and we would be happy to assist you.

IMPORTANT Notes:

- The Connections QSEA program cannot accept responsibility for loss or damage to personal possessions. Please refrain from bringing valuables with you to campus.
- SAFETY EQUIPMENT: To ensure students' health & safety, **closed-toe shoes, and long pants are required** in all Queen's laboratories. If the student arrives at the Academy without them, they will be required to purchase some in Kingston. It is also recommended that students bring a set of clothing for hands-on/messy days.

Lost and Found:

Any items collected as lost and found will be held at the Connections office for 30 days from the program completion date. Please contact us if you suspect you may have lost something during your visit to Queen's University. After 30 days, all lost and found items will be donated to charitable organizations.

Appendix A – Tentative Schedules for QSEA Senior Courses

Engineering Innovative Pathways: July 7 – 12, 2024 & July 28 – August 2, 2024

QSEA Sr: Engineering Innovative Pathways

	Monday	Tuesday	Wednesday	Thursday	Friday
8:30 AM	Sign In	Sign In	Sign In	Sign In	Sign In
9:00 AM	QSEA Introduction	Project B	Design Challenge	Guest Presenter	Design Challenge
9:30 AM	Icebreaker		Project A		Project A
10:00 AM	Project A			Guest Presenter	
10:30 AM		Guest Presenter			
11:00 AM			Guest Presenter		
11:30 AM					
12:00 PM	Lunch				
12:30 PM					
1:00 PM	Guest Presenter	Project B	Queen's University Mechatronic and Robotics Lab	Project A	
1:30 PM	Design Challenge				
2:00 PM		Design Challenge			
2:30 PM					
3:00 PM					
3:30 PM					
4:00 PM	Sign Out	Sign Out	Sign Out	Sign Out	



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Engineering the Human Potential: July 14 – 19, 2024

QSEA Sr: Engineering the Human Potential

	Monday	Tuesday	Wednesday	Thursday	Friday
8:30 AM	Sign In	Sign In	Sign In	Sign In	Sign In
9:00 AM	QSEA Introduction	Icebreaker	Project A	Icebreaker	Icebreaker
9:30 AM	Icebreaker	Project A		Guest Presenter	
10:00 AM	Project A		Project B		Guest Presenter
10:30 AM				QSEA Cup	
11:00 AM	Design Challenge	Design Challenge	Guest Presenter		
11:30 AM					Guest Presenter
12:00 PM	Lunch				
12:30 PM					
1:00 PM	Clinical Simulation Lab	Project B	Queen's University Biopolymer Lab	Guest Presenter	
1:30 PM				Project B	
2:00 PM		Project A			
2:30 PM				Design Challenge	
3:00 PM					
3:30 PM					
4:00 PM	Sign Out	Sign Out	Sign Out	Sign Out	



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Engineering Fundamentals: July 21 – 26, 2024 & August 11 – 16, 2024

QSEA Sr: Engineering Fundamentals

	Monday	Tuesday	Wednesday	Thursday	Friday
8:30 AM	Sign In	Sign In	Sign In	Sign In	Sign In
9:00 AM	QSEA Introduction	Icebreaker	Icebreaker	Icebreaker	Project B
9:30 AM	Icebreaker	Project B	Project B	Beatie Water Research Lab - Flume Tank Testing	QSEA Cup
10:00 AM	Project A				
10:30 AM		Project C	Design Challenge		
11:00 AM			Guest Presenter		
11:30 AM					
12:00 PM	Lunch				
12:30 PM					
1:00 PM	Guest Presenter	Project C	Queen's University Machine Shop	Guest Presenter	
1:30 PM	Project A				
2:00 PM					
2:30 PM					
3:00 PM					
3:30 PM					
4:00 PM	Sign Out	Sign Out	Sign Out	Sign Out	