

High School pre-dinner Program:

Session 1: Fuel Cell Evaluation and Research Center, Dr. Bade Shrestha

Students will learn more about the research involved in fuel cell performance and efficiency, as well as the effect of various operating parameters such as pressure, temperature, humidity, load, atmospheric impurities and composition. Students will also see the Fuel Cell Test Station, Hydrogen Generating System, PEM and Alkaline Fuel Test Cells, Impedance Meter, and Gas chromatography.

Session 2: Wind Turbine, Dr. John Patten

Students will see the wind turbine at Parkview, and learn more about the quantity and quality of energy produced. The Skystream 3.7 wind turbine is rated at 1.8 kW nominal, and 2 kW maximum. The unit comes equipped with a remote interface that provides for remote display and operation of the turbine from inside the Parkview campus building complex. Students will also learn about the evolution of wind technology.

Session 3: Bio-diesel creation, Professor Harold Hladky

Students will learn about the creation of bio-diesel from trap-grease. Trap grease removal is a necessary negative cost for area restaurants. We can take the trap material and produce fuel from it, turning a negative cost into a potential positive gain for companies. Chemical engineers are working to make this a large-scale reality.

Session 4: Sunseeker Solar Car

The Sunseeker team will meet with students to discuss and show their various solar-powered vehicles. The Sunseeker is designed to race cross-country using energy created solely from the sun. Upcoming races include both the American Global Challenge and the World Global Challenge.

**** Each session will run 20 minutes, and students will rotate through each one. The sessions will run from 4:00 – 5:30.**