



Welcome to the Clarkson University STEP Program, also called the IMPETUS for Career Success. IMPETUS stands for *Integrated Mathematics and Physics for Entry to Undergraduate STEM (Science, Technology, Engineering, Mathematics)*.

This is an after school and summer program sponsored by Clarkson University. It is designed to provide enrichment activities and support you academically in Math and Science. The goal of this program is to help you realize your potential for college and the possibilities of an exciting career! This year, we are launching a new video game design challenge which we describe below!

During the school year, the afterschool program has several main components, some for middle school students and some for high school students. These include;

- **Clarkson Campus Visits:** A highlight of the program--once each month, you will travel to the Clarkson for special activities, such as the hands-on research experiments, computer programming, the STEM career fair, and Pi Day. You will join about 100 other students from all over Franklin, Jefferson, Lewis, and St. Lawrence Counties who are also participating in this program.
- **Roller Coaster Design Competition:** You will work as a team with your friends to build a model roller coaster using everyday items guided by your engineering workbook. You will be supported by your teacher/coach at weekly meetings. A Clarkson mentor will help during monthly visits. In April, there is a competition to see which team has created the roller coaster with the longest ride and most creativity.
- **Personalized Academic Support:** Set up your own account on Khan Academy. Log in and practice your Math skills.
- **Problem of the Week Competition:** Log into Moodle each week to find a math or science challenge! You will have a few opportunities to *win BIG prize (Oculus, Headphones, or something electronic and fun!)* Of course, "You gotta be in it to win it!" so get involved!
- **Integrated Clarkson Experience (ICE):** ICE is a college prep program designed specifically for students in their sophomore, junior and senior years of high school. Your goals and interests are probably changing as you look forward to life after high school. Through this program, we pair each student with a Clarkson Student Mentor who will provide support and guidance as you make those decisions. You will learn, grow and have fun through a variety of activities scheduled throughout the year.
- **Game-on Challenge:** This is a redesigned challenge for creative students who love video games, animation, and digital art! IMPETUS students will work in teams to design a video game using the Scratch programming environment. Put your creative problem solving skills to work and show off your innovation at the end-of-the-year showcase with a chance to win *a laptop!* Get your game on!
- **Clarkson Discovery Challenge:** IMPETUS high school students will work in teams to propose solutions to real-world issues with the help from Clarkson faculty and students.

Put your creative problem solving skills to work and show off your innovation at the end-of-the-year showcase with a chance to *win some awesome* prizes and present your project at the State STEP Conference in Albany in March. Participation in this exciting event looks GREAT on a resume and college application so let's jump in!

- **Promoting YOUR success:** Our goal is to help you get to college! You can stay connected with the Clarkson team through Moodle, our online collaborative learning environment. You will have your own account and can log in from anyway to connect with your mentor and participate in IMPETUS activities. Your teacher/coach can help you with this.

Each month you will get an IMPETUS newsletter. Take it home and share it with your family. The newsletter will tell you all about up-and-coming events and opportunities to get involved. We would also like to hear from you—*so if you would like to write a column or contribute to the newsletter, just let us know! We also have active instagram, Tik Tok, and Facebook accounts so look for news and share your successes with us!*

In the summer, you can attend a one week day camp on the Clarkson University campus. The theme of the camp is “Roller Coaster Challenge.” Teams of students design their own rides and test them out in a simulator. Then, they have a chance to ride real coasters and meet with a roller coaster engineer during a trip to Six Flags Great Escape in Lake George. The camp ends with special presentations for families and an awards ceremony.

For more information visit our website: <https://sites.clarkson.edu/impetus/>

Join us on Facebook! It's a great way to stay connected to the friends you'll make during the Summer Camp and afterschool activities.

I hope you will enjoy all the IMPETUS events and fun!

Yours truly,



Kathleen Kavanagh  
Department of Mathematics

**PS Tell your parents that they can find us on Facebook as ‘Clarkson Impetus’ and send us a Friend Request.**