

Independent Science Research (ISR)



Questions? Contact Mrs. Di Silvio at Rachel.disilvio@lcps.org

- This elective science course is intended for juniors and seniors interested in continuing their study through an independent project in science, engineering, mathematics, or computer science.
- Students participating in Independent Science Research (ISR) should have a significant science background prior to entering the course.
- ISR projects are subject to considerable peer and teacher review during all phases of development. The focus of this course is on sustained, scientific inquiry.
- Students are expected to take responsibility for project development, meeting timelines, collecting data, defending procedures, and presenting results.

Assignments:

- One research project to be designed and analyzed through the year
- Expect other projects to learn research skills
- Reading, summarizing, discussing, and presenting on current research topics
- There are no tests/ quizzes in this class

Research Project:

- Students will formulate a research question
- Students will design an investigation to answer research question
- Students will complete data collection and statistically analyze the results
- Students will effectively communicate results to other scientists

Skills learned in ISR:

- Research process
- Aseptic lab techniques
- Scientific Inquiry
- Article Annotation
- Data collection
- Statistical analysis
- Presentation skills
- Peer review



Dual Enrollment Option:

- Students may choose a Dual Enrollment option offered through a partnership with George Mason University (GMU), College of Science.
- Students must have at least a 3.0 GPA in order to be considered for the Dual Enrollment section.
- Students have the opportunity to earn 3 college credits from GMU while completing the in-depth research project.

LCPS Regional Science and Engineering Fair:

All ISR students are required to participate in the process leading to possible selection for participation in the Loudoun County Regional Science and Engineering Fair. All students are expected to complete an in-depth research project as a required part of their course work.