



MONTGOMERY COUNTY PUBLIC SCHOOLS
Science, Mathematics, Computer Science Magnet Program

MONTGOMERY BLAIR HIGH SCHOOL
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To: Prospective Mentor for the Blair Magnet Research Program
From: Susan Ragan, *Blair Magnet Research Coordinator*
Re: Mentorship for the 2009 calendar year

We are in the process of establishing off-campus internships for our junior class at the Blair Magnet Program. We would like our students to be of use to your laboratory, become a team member for the problem your laboratory is investigating, and after training, make their own contribution to a research project. If you have any questions about our research program, please contact me at 301-649-2878 or via email at sragan@mbhs.edu.

The Magnet Research Program consists of three distinct components: preparation for the summer research in the spring, the summer internship, and completion of a scientific research paper in the fall.

Preparation for the Summer Internship (SRP-A Course)

January – June, 2009

During this stage, the student seeks a mentor who works primarily in an area of math, science, computer science, or engineering to guide the development of the student's research project. The student is expected to acquire background knowledge about the topic and the lab prior to starting the summer internship. Mentors are asked to provide the students with guidance in finding appropriate materials for background knowledge and to give the student the opportunity to learn lab protocols prior to the summer so that their summer research time can be productive. The students will be expected to keep a lab book to report all activities and time spent.

The Summer Internship

June – August, 2009

The student is expected to:

1. Follow normal business hours and standard operating procedures for the lab.
2. Provide his/her own transportation to and from the research site.
3. Keep a daily journal (research notebook) of data or activities following laboratory protocols. This journal should be signed by the mentor at the end of the summer to document the student's work.
4. Clean the work station and return equipment to its proper place before leaving for the day.
5. Follow directions and complete the work assigned with minimal supervision.
6. Collect and analyze data.
7. Read relevant research papers.
8. Be punctual and considerate of others.
9. Work willingly and inquisitively.
10. Have goals for his/her experimentation.
11. Communicate with the Research Coordinator to establish a time for a summer visit to the lab.

The mentor will be asked to complete an evaluation checklist to assess the quality of the student's work. The mentor's evaluation will count as 25% of the student's first quarter grade in the research course SRP-B.

Completion of the Scientific Research Paper (SRP-B Course)

August, 2009 – January, 2010

During this final stage of the research process, the student may return to the lab after school and on weekends as required to complete the research. Through the SRP-B course, the student will be guided in the writing of a 10-20 page research paper following the style expected for the discipline in question. We ask that the mentors take an active role in this process, providing advice to the student and editing the paper during the writing process. Many students enter the Siemens and Intel competitions which require information provided by the mentor. Each student will also prepare a presentation and poster for the 2010 Magnet Research Convention to which the mentors will be invited.