Mandatory
Informational Meeting
Regarding Application
Wednesday 10/31 → 7:40am or 3:45pm

iGEM 2019 – Application Information

Lambert's iGEM program offers a unique opportunity for students interested in cutting edge research. The International Genetically Engineered Machine (iGEM) competition is a collegiate competition in synthetic biology which incorporates aspects of software, hardware, and wet-lab. Competing high school teams are held to the same standard and judged using the same rubrics as the collegiate teams. As a result, membership in Lambert's team takes hours of hard work and a full year of dedicated commitment. We look for individuals who are not only excellent in biological sciences, but who bring different talents such as scientific writing and speaking, hardware engineering, computer coding, software and marketing. Candidates also need to demonstrate a strong ability to work collaboratively and to act as a leader.

The work begins at the end of November and carries over to the following November. It is a year-long commitment where students will average 6 -8 hours a week during the spring semester and 10+ hours a week during the fall semester. Some summer hours will also be required based on project progress and outreach opportunities. Being on the iGEM team is a commitment on the level of a varsity sport and careful consideration should be made as to school/life/extracurricular balance. Attendance at lab sessions, outside research, practice sessions, and writing are mandatory. Keep in mind, you will often have work days on school holidays during the spring and fall semester.

New members to the team are required to attend molecular biology training that is held for several consecutive weeks from 6:30am- 8:15am. iGEM also holds a Biotech Boot Camp in the Summer for rising 8th and 9th grade students and it is expected that all members will be present to help with the camp. Each member has individual and shared responsibilities and is expected to make significant contributions to the overall project. Those who do not make a significant impact to the project will not travel with the team to the iGEM Jamboree in Boston.

Being chosen for the team does not guarantee traveling to the International Jamboree in Boston. Team members must qualify for the privilege to travel through their scientific contributions, attendance, and positive attitudes. The International Jamboree is held in Boston at the Hynes Convention Center and is an exciting culminating 5-day event. Teams from all over the world gather to present their research and vie for awards and recognition through formal presentations, posters presentations and networking. Students who attend the International Jamboree, Oct 31- Nov 4, 2019 are eligible to earn a letter.

Members will be chosen based on the quality of application submitted, teacher recommendations, previous research experience, applicable coursework in mathematics and computer science, as well as core and applied science coursework. Experience in AP Biology and the Biotechnology Pathway are strong assets along with previous research experience. iGEM applications are reviewed by a committee and if necessary students may be asked to attend an interview/creative problem-solving session to make final determinations. The size of the team is not predetermined but is generally 14 -18 members. The selection committee uses a rubric to assess the following: See following page.

1. Academic ability and talents
2. Teacher recommendations
3. Scientific research skills
4. Experience in research, wet lab, and computer coding skills
5. Project proposal
6. Professionalism of application

To Apply:
New Members

1. Complete the application package which includes the following:
   - Application Information
   - Commitment Statement
   - Letter of Interest
   - Copy of Unofficial Transcript
   - 9 Week Progress Report
   - Table of All Past and In-Progress Applied/Core Science, Computer Science and Math Courses with Grades – Include all courses taken in middle school where high school credit was granted. Calculate your math and science GPA independently. For purposes of calculation, computer science is an applied science course. See Dr. Cantrell if you need help calculating your GPA.
   - Project Proposal - Research and write a proposal for a new iGEM project. The project proposal should demonstrate an understanding of synthetic biology, be reasonable within our high school environment and scientifically significant. It can be based on prior iGEM projects but should include suggestions for extending the projects significantly. The project proposal should be roughly 1000-2000 words, refer to existing parts in the parts registry, follow APA format and include proper citations. You can reference past iGEM Wiki pages for inspiration. Names of student should not appear anywhere on the project proposal documents.
2. Ask three teachers; one math, one science and one science/applied science/computer science teacher, to complete the attached recommendation forms. → Teacher Recommendation Forms will be distributed at the mandatory informational meeting.
3. The application packet should be assembled in the order in which it is described above. Use a binder clip to keep the pages together. Do not use page protectors, binders or staples. The completed package must be turned in by November 27, 2018 by 8:00am to Dr. Cantrell in room 2210. Late applications will not be accepted for any reason. If a student is absent, the application can be submitted via email to bcantrell@forsyth.k12.ga.us

The expected expense of participation on the iGEM team can change due to the amount of fundraising completed, corporate sponsorship, and the number of team members who are eligible to travel with the team to the Jamboree. The fees of the program include initial team registration, uniforms, supplies and reagents for experiments, travel costs, and registration for the Jamboree.