



IGEM APPLICATION MEETING

NOVEMBER 21 AND 22



*Synthetic
Biology*

WHAT IS IGEM?

- International Genetically Engineered Machine
- Collegiate scientific research competition
- Students work cooperatively over a year to design, build, and test biological circuits, which are built with interchangeable genetic parts called “biobricks”
- Compete at the International Jamboree in Boston October 28- Nov 2, 2020
- Information iGEM.org

JAMBOREE JUDGING

- All Teams- Medals are potential for every team and are based on the accomplishments over the course of the year.
- Special Awards – High school teams compete against each other for these recognitions.
 - Best **Presentation, Poster, Wiki**- Recognizing excellence in communicating science
 - Best **Hardware, Software, Model, Measurement**- Recognizing excellence in scientific tools
 - Best **Product Design, Entrepreneurship**- Recognizing excellence in product development
 - Best **Education and Public engagement, Integrated Human Practices**- Recognizing excellence in science as a human endeavor

TEAM MEMBER REQUIREMENTS

- **Commitment** – Varsity Level
- **Financial** - \$2,500.00
 - Due in 4 installments
 - Cost of involvement may be partially or entirely offset by corporate sponsorship and/or donations in your name.
- Minimum of 6 – 8 hours a week in non-completion season and 12+ during competition season
 - *Must have 1 period in schedule 2020/21 school year*
 - Morning Meetings Monday 6:30am
 - New Member Training Mornings January/February

SKILLS

- **The team is formed as a company with different committees requiring combinations of different skill sets**
 - Wet-lab
 - Research
 - Communication/Public Speaking
 - Graphic Design
 - Coding
 - Teamwork
 - ****Provide Proof with Application (ex. Website, Graphics)**

HOW IS THE TEAM CHOSEN?

- Teamwork Skills
- Experiences in Science, Research, Leadership
- Age and Talent Balance
- Teacher Recommendations
- Multidisciplinary
- Background Scientific Knowledge
- Preference will be given to those with a working background in biotechnology and research.

APPLICATION

- Personal Information
 - Commitment Statement
 - Letter of Interest
 - Copy of Unofficial Transcript
 - Current Grade Sheet
 - Table/List of All Past and In-Progress Applied/Core Science and Math Courses with Grades – Include all courses taken in middle school where high school credit was granted.
 - Copy of 9 Week Progress Report
 - Project Proposal
 - Ask three teachers; one math/computer science and one science teacher, and one science/applied science to complete recommendation forms. These can be found on the Lambert Webpage.
- The completed package must be turned in by Dec 3, 2019 by 3:45pm to Dr. Cantrell in room 2211. 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



PROJECT PROPOSAL ABSTRACT

300 WORDS MAXIMUM

- Problem - Clearly stated
- Background Information – Scientific research of both problem and the proposed solution
- Synthetic Biological Circuit –including parts registry numbers and or source of gene
- Double spaced, grammatically correct.

PROJECT PROPOSAL CONT'

Research and write a proposal in abstract form for a new iGEM project. It should demonstrate:

- an understanding of synthetic biology and refer to existing biobricks in the parts registry
- be reasonable within our high school environment
- can be based on prior iGEM projects but should include suggestions for extending the projects significantly. The project Abstract should be no more than 300 words, follow APA format and include proper citations.

ALUMNI EXPERIENCE

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• Nithik Balachandran – nithikbala@gmail.com

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DUE DATES AND QUESTIONS

- December 3 by 3:45 pm → Room 2211: DO NOT LEAVE YOUR APPLICATION WITH ANYONE. PUT YOUR APPLICATION DIRECTLY INTO DR. CANTRELL'S HANDS
- Applications will be reviewed and the candidates for iGEM membership will be invited to continue tryouts for the 2020 team → This will be announced on Dec 6 at 3:45.
- A second round of teamwork skill assessments will be held during L&L on December 9-11. Interviews will also be required.
- Final Announcement December 13 3:40 pm Science bulletin board at the end of the 2200 hallway.
- First Meeting December 16, 6:30 am

RETURNING MEMBERS

- Conference Assignment
- Application Information
- Commitment Statement with Parent Signature
- Copy of Unofficial Transcript
- Abstract