Join Virginia Tech’s 2010 iGEM Team

• International Genetically Engineered Machines (iGEM) is the prestigious competition organized by the Massachusetts Institute of Technology. The objective of the competition is to design and build an engineered biological system using standard DNA parts.

• iGEM Team members will need to imagine, engineer, and assemble a biological system that does something really cool. The challenge is to make a living counterpart of basic engineering designs (e.g. bacterial photography, genetic counter, biological internet, etc.). The team should take an engineering approach to the problem, using computer modeling and simulation to design their system.

• The selection of iGEM team members is competitive.

• The completed project will be presented at the iGEM jamboree in 2010.

What is iGEM?

Bright, motivated freshman, sophomore, junior, or possibly senior students who will be returning for the fall semester of 2010. They should be affiliated with the College of Agriculture and Life Sciences, the College of Engineering, or the College of Science (biology, biochemistry, math, engineering, computer science, and more majors). Masters students for the software team. Students should be able to demonstrate a strong inclination for team work and an interest in a transdisciplinary approach to science. They will be expected to develop a working knowledge of all aspects of the project (modeling, computational, and biological).

Students will have the opportunity to participate either as part of the regional team (Virginia Tech, Virginia Commonwealth University, University of Virginia, Bluefield State College, and Virginia State University) or as part of a software team comprised of Virginia Tech students and participants from ENSIMAG, an engineering school in France. The regional team will focus on a synthetic biology project to be selected by the combined input of all the universities involved. The second group will focus on the software track of the competition. They should be capable of jaw-dropping creativity and realistic enough to assign themselves goals reachable within assigned deadlines.

Is the iGEM program for you?

- Are you interested in working on a cutting-edge biotechnology project with a team of other like-minded students?
- Are you looking for a full-time, salaried position over the summer ($3,600 stipend)?
- Would you like to interact with some of the brightest students interested in biotechnology from around the world?
- Are you interested in an expenses paid trip to Boston to participate in the iGEM competition?
- Do you want a chance to work on self-directed, original research?
- Would you like the opportunity to apply what you have learned in class to develop a real-world application?

Who are we looking for?

- Bright, motivated freshman, sophomore, junior, or possibly senior students who will be returning for the fall semester of 2010. They should be affiliated with the College of Agriculture and Life Sciences, the College of Engineering, or the College of Science (biology, biochemistry, math, engineering, computer science, and more majors). Masters students for the software team.

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If you answered “yes” to any of these questions, Virginia Tech’s 2010 iGEM Team is for you!

Contact: Matt Lux, Graduate Advisor, iGEM Alumnus, mlux@vt.edu, 540.231.9774
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- The selection process will be competitive.
- Interested students should send a pdf file including resume and a 250-word essay to mlux@vt.edu by **February 24th, 2010**. The essay should explain why they are interested in participating, what skills they can bring to the team, and describe some ideas of projects for the team.
- We will select the best, brightest, and most motivated candidates for the teams. However, we will also try to achieve a well-balanced team by selecting people bringing different expertise to the group.

How Do I Join The Team?

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What’s in it for me?

iGEM is an opportunity to gain practical experience in collaborative scientific research in a casual yet supportive environment. A few of the benefits reported by former iGEMers include:

- Work with other students from Virginia (Virginia Tech, Virginia Commonwealth University, University of Virginia, Bluefield State College, and Virginia State University)
- Compete with other student teams from leading research institutions from around the world (Harvard, MIT, Princeton, Cambridge)
- Apply what you have learned in class to develop a real world application
- Interact with some of the brightest students in this field from around the world
- Meet prospective employers
- Identify potential areas of research for graduate school
- Do self-directed, original research, not just routine summer work
- Experience competitive science, but in a friendly and supportive environment
- Learn about leading edge biotechnology tools, methods for practical applications, and intellectual property
- Strengthen problem solving and communication skills
- Chance to interact with supervisors

Calendar of Events

- **February 24**
  - Applications Due
- **February 28**
  - Teams Announced
- **2010 Spring Semester**
  - (February through May): Brainstorming and design meetings to be arranged
- **May 22 to August 9**
  - Paid lab or software development work full-time at the Virginia Bioinformatics Institute
- **August 10 to October**
  - Finish up project and work on presentation
- **November**
  - iGEM 2010 event in Boston, MA

Contact

- **Matt Lux**
  - Graduate Advisor, iGEM Alumnus
  - mlux@vt.edu, 540.231.9774