

## Attention high school students in grades 11 & 12 and ASU freshman & sophomores!

Are you curious?

Do you want to explore cutting edge science and technology with scientists?

Do you want to make a positive impact on the world?

If you answered "Yes," then **BioXFEL Ed** is right for you!

**BioXFEL Ed** meets Wednesdays, 3:45-6pm, at the Physical Science Labs at ASU Tempe campus.



### Dates for Spring 2014

<p>February 19, 26</p> <p>March 5, 26</p> <p>April 2, 16, 23</p> <p>Showcase April 30</p>	<b>February</b> S M T W T F S 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28	<b>March</b> S M T W T F S 30 31 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29	<b>April</b> S M T W T F S 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30
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To apply please follow these three easy steps.

#### Step 1: Determine if you are eligible.

- High School students: Completed Algebra 1 & Biology with grade of B or better.
- College students: Grades B or better in all science, technology, engineering and mathematics courses completed, including high school Algebra 1 and Biology.



#### Step 2: Complete the BioXFEL Ed Student Application Packet.

The packet consists of the 2-page Student Application, the Student Participation Consent/Assent Form, and if you are under 18, the Parent Information Page and the 2-page Parent Permission Form.

#### Step 3: Fax, mail, or hand-deliver your completed application by Friday, February 3, 2014

(Pages 2 – 4 for all applicants, and page 6 for applicants under age 18.)

FAX	MAIL	HAND-DELIVER
BioXFEL Ed Fax 480-727-0910	Arizona State University BioXFEL Ed – PRIME Center PO Box 875703 Tempe, AZ 85287-5703	BioXFEL Ed Arizona State University PRIME Center, Discovery Hall #212 250 E. Lemon St., Tempe, AZ 85287



#### Contact Information:

**Carole Greenes**, BioXFEL Ed Education Director, (480) 727-0902; Cell (480) 390-0917; [cgreenes@asu.edu](mailto:cgreenes@asu.edu)

**Mary Cavanagh**, BioXFEL Ed Co-Director, (480) 727-0907; Cell (480) 273-7951; [mcavanagh@asu.edu](mailto:mcavanagh@asu.edu)

**Shelley Tingey**, BioXFEL Ed Co-Director, (480) 727-0904; Cell (480) 273-1249; [shelley.tingey@asu.edu](mailto:shelley.tingey@asu.edu)



# BioXFEL Ed Student Application Packet

Funded by the National Science Foundation



## Student Application (1)

(Deadline for receipt of application is February 3, 2014)

Please send your completed application to:

FAX	MAIL	HAND-DELIVER
BioXFEL Ed Fax 480-727-0910	Arizona State University BioXFEL Ed – PRIME Center PO Box 875703 Tempe, AZ 85287-5703	BioXFEL Ed Arizona State University PRIME Center, Discovery Hall #212 250 E. Lemon St., Tempe, AZ 85287

(Pages 2 – 4 for all applicants, and page 6 for applicants under age 18.)

## Student Information

Student Name (Print): \_\_\_\_\_ Age: \_\_\_\_\_

Grade (circle one):    HS Grade 11    HS Grade 12    ASU Freshman    ASU Sophomore  
School District or ASU Major \_\_\_\_\_

Phone numbers (Home): \_\_\_\_\_ (Cell): \_\_\_\_\_

Permanent Address: \_\_\_\_\_

Student Email \_\_\_\_\_

Courses and grades in Science, Technology, Engineering, and Mathematics completed in the last two years. (Including high school Algebra 1 and Biology). Note: Grades must be B or better.

Course	Grade	Course	Grade
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____

Please attach additional pages if necessary.





# BioXFEL Ed Student Application Packet

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## Student Application (2)

We are requesting the following information from all applicants.

Gender:

Female

Male

Ethnicity:

Hispanic or Latino

Not Hispanic or Latino

Unknown

Race:

American Indian or Alaska Native

Asian

Black or African American

Native Hawaiian or Pacific Islander

White

Disability Status:

Hearing Impaired

Mobility/Orthopedic Impairment

Visually Impaired

Other

None



### Student Participation Consent/Assent Form

I wish to be considered for *BioXFEL Ed*, part of a research project at Arizona State University. As a member of *BioXFEL Ed*, I agree to:

1. Attend all meetings in the Arizona State University Tempe campus labs.
2. Be interviewed about my work on projects.
3. Be audiotaped/videotaped during my work on projects.
4. Complete surveys about my interests in and knowledge of in science, technology, engineering and mathematics.
5. Provide data about my academic work, including course grades and results of standardized tests when requested by researchers.
6. Present my project work at the Showcase Open House.
7. Work and think hard.

Additionally,

- I understand that information from the activities above will be collected and may be used for research purposes.
- I understand that no names will be attached to any data used in reports, publications and/or presentations.
- I understand there are no foreseeable risks to participation other than the time commitment involved in participation.
- I understand that participation in *BioXFEL Ed* will not affect my grades in school.
- I understand that participation is voluntary and I may withdraw from *BioXFEL Ed* at any time without penalty.
- I understand that activities and interviews may be audio or video recorded.
- I understand that if I am not at least 18 years old, I must have permission from a parent or guardian to participate in *BioXFEL Ed*.
- I understand that by signing below, I am agreeing to participate in the *BioXFEL Ed* research study.

If you have questions concerning this research study, please contact the research team at 480-727-0907. If you have any questions about your rights as a subject/participant in this research, or if you feel you have been placed at risk, you can contact the Chair of the Human Subjects' Institutional Review Board through the ASU Office of Research Integrity and Assurance at 480-965-6788.

Student Name (Print) \_\_\_\_\_

Student Signature \_\_\_\_\_ Date \_\_\_\_\_



## BioXFEL Ed Student Application Packet

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### Parent Information and Permission Form for Students Under the Age of 18

Dear Parent or Guardian,

Arizona State University is conducting a study to investigate ways to better prepare students for careers in science, technology, engineering and mathematics. **As a member of BioXFEL Ed**, your child will participate in science and technology explorations for eight (8) Wednesdays each semester, from 3:45-6pm at the Arizona State University labs located on the Tempe campus. There is no charge for participation. This is a scholarship program for all students selected to participate. Leaders of *BioXFEL Ed* are scientists and staff from ASU.

To evaluate this approach to improve learning, the project team will interview, audiotape and videotape your child about problem solving methods, and collect and analyze work produced in *BioXFEL Ed* meetings. School grades and scores on standardized tests will be collected from each participant and analyzed. Project staff will maintain materials and recordings, and our analyses of these, only for the duration of the project. No one other than the project team will have access to student school records collected or review the recordings and other materials collected. All data collected will be used for research purposes only.

Participation in *BioXFEL Ed* is voluntary. Your child may withdraw from *BioXFEL Ed* at any time. Participation or withdrawal will not affect your child's grades in any school courses.

If you agree to have your child participate in *BioXFEL Ed*, we would like you to attend the end-of-semester Showcase Open House on April 30, where your child and other students will display and describe their projects.

If you have questions concerning this research study, please contact the research team at 480-727-0907. If you have any questions about your rights or your child's rights as a subject/participant in this research, or if you feel you or your child have been placed at risk, you can contact the Chair of the Human Subjects' Institutional Review Board through the ASU Office of Research Integrity and Assurance at 480-965-6788.

Thank you,

**Carole Greenes**, Education Director, BioXFEL Ed, Director, PRIME Center, ASU;  
Associate Vice Provost for STEM Education, ASU  
Office (480) 727-0902, Cell (480) 390-0917, [cgreenes@asu.edu](mailto:cgreenes@asu.edu)

**Mary Cavanagh**, Co-Director, BioXFEL Ed, Executive Director, PRIME Center, ASU  
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Office (480) 727-0904, Cell (480) 273-1249, [shelley.tingey@asu.edu](mailto:shelley.tingey@asu.edu)

Arizona State University PRIME Center, Discovery Hall #212, 250 E. Lemon St.  
PO Box 875703, Tempe, AZ 85287-5703





# BioXFEL Ed Student Application Packet

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## Parent Information and Permission Form for Students Under the Age of 18

Child's Name (PRINT) \_\_\_\_\_ Age \_\_\_\_\_

Parent/Guardian Name (PRINT) \_\_\_\_\_

Home Address, City, State, Zip \_\_\_\_\_

Parent/Guardian Phone Numbers (Home) \_\_\_\_\_ (Cell) \_\_\_\_\_

Parent/Guardian Email \_\_\_\_\_

### Agreements:

1. Beginning February 19, 2014, my child will participate in *BioXFEL Ed* at the Tempe campus of Arizona State University, 3:45pm-6:00pm.
2. My child may be audio or videotaped during participation in project activities and one-on-one interviews.
3. My child will complete surveys about careers in science, technology, engineering and mathematics.
4. My child's project logs and surveys, and other project work will be collected and analyzed.
5. My child's course grades and scores on standardized tests scores may be shared with project staff.
6. My child may be contacted by research staff via email or phone after leaving the program and asked about *BioXFEL Ed* experiences.

I understand that researchers may collect data about my child's academic work, but no names will be attached to any data that will be reported. Audio and videotapes, once analyzed, will be destroyed.

I understand that my child may withdraw at any time. Participation or withdrawal from *BioXFEL Ed* will not affect my child's grades in any school courses.

I agree that my child, \_\_\_\_\_, may participate in *BioXFEL Ed* activities.

Parent Signature \_\_\_\_\_ Date \_\_\_\_\_

