

Biofuels Research Apprenticeship Program at Old Dominion University

Program Overview

The Biofuels Research Apprenticeship Program at Old Dominion University (ODU) is designed to engage local high school students in biofuels-related research offered by the Energy Cluster of the Batten College of Engineering, ODU. The goal of the program, which is sponsored by the National Science Foundation (NSF), is to provide an active experience for high school students to participate first-hand in STEM research related to the topic of sustainable production of biofuels. Students who are accepted will attend ODU's Biomass Research Laboratory (BRL) for four weeks to participate in intense environmental and biofuels engineering research, on algae cultivation, nutrient recovery and recycling, and biofuels production. Participants will spend their time in the program serving as *junior research associates* where they will develop an understanding of an Environmental Engineering Laboratory, participate in basic water analysis, and work on a hands-on project related to sustainability through Algae cultivation and biofuels production.

Applicants must be either current Juniors or Seniors and must have some background in both Biology and Chemistry.

Students who will attend the program free of charge and will earn a **\$300** honorarium at the end of the program for their active engagement and participation.

Program Dates

This program will run Monday-Friday, July 09 - August 03, 2018 from 10 AM - 3 PM

Program Application Process

1. Parent/guardian and student complete the following student application form.
2. Student completes written response on application form.
3. Submit an official copy of your academic record
4. Parent/guardian or student gives a recommendation form to the student's current science teacher or program coordinator.
5. Applications can be submitted electronically to skumar@odu.edu, delivered, or mailed to:

Old Dominion University
Sandeep Kumar
135 Kaufman Hall
Norfolk, VA 23529

- All requested documents are due by the deadline date, **Friday, June 08, 2018**. If all requested documents are not received by the deadline date, the application will not be considered. You will receive notification on the status of the application via email no later than **Friday, June 15, 2018** with written notification soon after.

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Application Form

Basic Information

1. Student First Name

2. Student Last Name

3. Home Address

Street

City/Town

State/ Zip Code

4. Email Address: _____

5. Ethnicity

Black/African-American

Asian-American/Pacific Islander

American Indian/Alaska Native

Hispanic

White Non-Hispanic

Other

6. Date of Birth: _____
Month Day Year

7. Gender

Female

Male

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8. Name of school student is currently attending

[Redacted]

9. Current Grade Level

[Redacted]

10. Cumulative GPA _____ Science GPA _____

11. Please list school organizations, any science and/or mathematics activities (Science Fair, math club, after school programs, summer programs, etc.) that you have participated in.

12. Please list any other activity or achievement that you would like to share with the selection committee

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Academic Record

Applicant's Name: _____

The above named student is applying for admission to the Biofuels Research Apprenticeship Program. **The Academic Record Consent Form is to be completed by a Guidance Counselor or appropriate school official.**

I, _____ give my consent for my Guidance Counselor or appropriate school official to share my academic record with and release a copy of my Transcript to the Biofuels Research Apprenticeship Program.

High School Transcript: Please provide the student with a sealed Official Transcript. Sealed official transcripts can be delivered or mailed to:

Old Dominion University
Sandeep Kumar
135 Kaufman Hall
Norfolk, VA 23529

Please note that an unofficial transcript will be accepted while waiting for the Official Transcript to arrive.

Guidance Counselor Signature: _____ Date: _____

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Short Essay Responses

Instructions: Respond to each item using complete sentences. Each response should be about a paragraph in length. It may be helpful to type your essay in a word processor, like Microsoft Word, and then attach the text to this application.

1. Describe your interest in science. In your response, discuss any prior experiences you have had in science both in and outside of school.
2. What is science? How do scientists work on a daily basis? What do they do?
3. What are your plans after high school? Be specific about what you plan to study in college if applicable and what your current plans for a career are.
4. How do you feel about your abilities to participate meaningfully in scientific research?
5. Why do you want to participate in the BIOFUELS Research Apprenticeship Experience at ODU and what do you hope to get out of the experience should you be selected for participation?

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Parent/Guardian Information

Instructions: Please complete the following information for at least one custodial parent or guardian, both, if available.

Name: _____ (2) _____
Relationship: _____
Employer: _____
Occupation: _____
Daytime Phone Number: _____
Home Phone Number: _____
Cell Phone Number: _____
Email Address: _____

1. Please indicate the highest educational level attained by your mother.

- Some high school
- Completed high school
- Some college
- Completed college
- Some graduate/professional school
- Completed graduate/professional school
- Don't know

2. Please indicate the highest educational level attained by your father.

- Some high school
- Completed high school
- Some college
- Completed college
- Some graduate/professional school
- Completed graduate/professional school
- Don't know

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Waiver and Release

Waiver and Release: In consideration of the University's acceptance of the participant for the referenced Summer Program, the undersigned participant and parent and guardian hereby releases Old Dominion University and its agents, representatives, officers, employees, directors, volunteers, and all other persons or entities acting in its behalf, from and against all liability of every nature, kind, and hurt, economic loss or damage sustained by the participant arising from or caused by, in whole or part, the alleged actual negligence or contributory negligence of Old Dominion University or of any agent, representative, volunteer, employee, officer or director of the University.

Testimony of the Student: *I hereby certify that I have no medical, psychological or emotional conditions that will prevent my normal participation in the program. I further certify that I have sufficient health, accident, and liability insurance to cover any bodily injury or property damage I may incur while participating in the Biofuels Research Apprenticeship Program at Old Dominion University, and to cover bodily injury and property damage caused to a third party as a result of my participation in this event; and will travel with access to sufficient funds to pay out-of-pocket for any such expenses until such time as I am able to recover reimbursement from my insurance company.*

Student Name (print) _____

Student's Signature _____ Date _____

Parent or Guardian Name (please print) _____

Relationship to Student _____ Telephone(_____) _____

Student's Signature _____ Date _____

Parent/Guardian's Signature _____ Date _____

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Teacher Recommendation Form

Please write a letter of recommendation for the applying student describing their interest in science and their abilities to participate meaningfully in scientific research. Additionally, please describe the ways in which you think that this applicant would personally benefit from this experience and how it might provide them an opportunity that they might not otherwise receive.

To the Applicant:

Your science teacher or program coordinator will seal teacher letter of recommendation which can be delivered by you or it can be mailed to:

Old Dominion University
Sandeep Kumar
135 Kaufman Hall
Norfolk, VA 23529

Privacy Notice:

Under the terms of the Family Education Right and Privacy Act (FERPA) you will have access to your recommendation

if/after you matriculate unless you waive your right to access below:

Yes, I do waive my right to access, and I understand I will never see this recommendation.

No, I do not waive my right to access and may someday choose to review this recommendation.

Student Signature: _____ Date: _____

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Submission

Once you submit this application, it is final. No changes can be made. Please be sure you have all required documents by **Friday, June 08, 2018**. Your science teacher or program coordinator will collect all application packets. He or she will then deliver the entire application packet to the Biofuels Apprenticeship program administrators. We will contact you via e-mail when we have received all pieces of your application.

You will receive notification on the status of the application and will be sent no later than **Friday, June 15, 2018** with written notification soon after.

If you have any other questions, you may contact us at skumar@odu.edu. Good luck!

Program Director's Contact Information

Sandeep Kumar, Ph.D.

Associate Professor

Director, Energy Cluster

Department of Civil and Environmental Engineering

137C Kaufman Hall

Old Dominion University

Norfolk, VA 23529

skumar@odu.edu

Websites:

[Faculty Webpage](#)

[ODU Energy Cluster](#)