

RET Participant Application

Instructions

This application is completed only after the following 6 items have been submitted:

- 1) an application see attached,
- 2) a resume,
- 3) a recommendation form see attached, from your principal (secondary school only) or department head (community college only),
- 4) a 2nd recommendation form from another appropriate school administrator or teacher leader,
- 5) a letter of recommendation from your principal (secondary school only) or department head (community college only), and
- 6) a supplemental letter of recommendation from another appropriate school administrator or teacher leader.

All 6 documents are due by Saturday, February 1st, 2020.

See the directions below:

- (1) Submit the application (below) to Lora Buchanan at Buchanll@ucmail.uc.edu.

 Title the email subject: Your Name_RET-Application-Documents_2020

 Save Your Application file name as Your Name_RET-Application_2020
- (2) Also include an updated resume saved as: Your Name RET Resume 2020
- (3) Also include the following documents (see attached.) <u>Two</u> Recommendation Forms (see below). One form is from the <u>Principal</u> (secondary school only) and/or <u>Department Head</u> (community college only) and a 2nd one is from <u>another appropriate school administrator or teacher "leader</u>." These forms can be emailed to Lora Buchanan at <u>Buchanll@ucmail.uc.edu</u>. by the recommender directly. A hand-filled form which is scanned and saved as a PDF document is acceptable to be emailed also. Please use the title **Applicant's name RET-Recommendations** in the email. They can be emailed with the Letters of Recommendation (see below) from each recommender directly.
- (4) Also include two **Letters of Recommendation** (see attached.) Provide a letter of recommendation from your <u>principal</u> (secondary school only) or <u>department head</u> (community college only) supporting the Post-RET implementation. Another (supplemental) letter of recommendation is required from <u>another appropriate school administrator or teacher "leader</u>." Both letters must provide <u>name</u>, <u>affiliation</u>, <u>and contact information and</u> be signed, scanned and emailed to Lora Buchanan at <u>Buchanll@ucmail.uc.edu</u>. Please use the title **Applicants name RET Recommendations** in the email. They can also be emailed together with the Recommendation Form from each recommender.

The preferred method is to scan and email as PDF documents. However, if the reviewer does not have access to a scanner, the forms can be mailed to:

Lora Buchanan RET 2019 Grant Coordinator University of Cincinnati P.O. Box 210076 Cincinnati, OH 45221-0076

| Application | | | | | |
|--|------------------------|--|--|--|--|
| Name: | | | | | |
| Personal Email (required): | | | | | |
| School/Institution Email: | | | | | |
| Home Phone: () - Cell Phone (required): () - NSF Diversity Reporting Information | | | | | |
| | | | | | The National Science Foundation requests s of RET participants our program is attracting aggregate form. |
| Gender: Male: □ Female: □ | | | | | |
| Do you have a disability? No: ☐ Yes Race: | s (specify): | | | | |
| White: \square Native American: \square Black or A Native Hawaiian or Other Pacific Islander: \square | • | | | | |
| The RET Project requires participation in an participation. A signature below indicates you | 5 , , | | | | |
| Signature of Applicant | Date of Application | | | | |
| Personal Address | School/College Name: | | | | |
| Street: | School/College Address | | | | |
| City: | Street: | | | | |
| State: | City: | | | | |
| Zip: | State: | | | | |
| | Zip: | | | | |
| Rank the following projects in the order of your Detailed project descriptions available at: https://doi.org/10.1001/journal.com | | | | | |
| Project # 1: "Tissue Engineering Approach for Diabetic Chronic Wound Healing" | | | | | |
| Project # 2: "Robust Indoor/Outdoor Positioning System Development" | | | | | |
| Project # 3: "Clean Energy Harvesting from Wastewater & Sea Water via Reverse Electrodialysis" | | | | | |
| Project # 4: "Interaction between Skin Stratum Corneum & Personal Care Products" | | | | | |
| Project # 5: "Software and Systems Security in Model-Driven Engineering" | | | | | |

| If you do not get your first choice, are you willing to participate with any of the other choices: Yes: No: If the answer to the above question is "Yes," indicate which ones. (Write the project #. Example: Project # 1 or Project # 5, etc.): Are there any projects you definitely would not like to participate in? |
|---|
| Yes: □ No: □ |
| If the answer to the above question is "Yes," indicate which ones. (Write the project #. Example: Project # 1 or Project # 5, etc.): |
| Answer the following questions, each in at least 50 words but no more than 100 words: |
| 1) What is your current job title and classification: tenure track, adjunct, regular full-time, regular part-time, temporary full-time, temporary part-time or other (describe)? Will this job be the same during the 2020-2021 Academic Year or change, and if it will change give its classification? |
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| 2) Considering your professional performance and especially the quality of your instruction, what are your strengths and how does this benefit the students? |
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| 3) What are your most effective techniques for increasing student learning? |
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specific content as they solve engineering problems. Students often work in teams to address design challenges and test and refine their solutions. 4) How might you utilize challenge-based learning in classes you are scheduled to teach next school year? 5) What challenges do you currently face in your classroom as you try to help students both master content and sustain their interest in the subject matter? 6) What is your highest priority goal for post-RET implementing? Illustrate your answer using a specific classroom activity you plan to implement to achieve this goal. 7) If given the opportunity to participate in the RET program for a second year, would you? No: □ Yes: □ If the answer is "Yes," describe how it will benefit you professionally and what you will do differently in your classroom?

RET Participants will be utilizing engineering design and challenge-based learning. To read more about challenge-based learning pedagogy, please consult the following link: challenge-basedlearning.org. Within a challenge-based environment, students learn

| (ι | ease describe your school demographics: school type (public/private), locatior rban/rural/suburban), school; enrollment, and gender (male/female), ethnicity /hite/ Native American/Black/Hispanic or Latino/Native American/Asian or Pacit |
|----|---|
| Is | lander/Others) and economically disadvantaged student distribution (give %.) |
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| | What courses are you planning to teach in the 2020-2021 academic year (give ex |
| - | course title, subject area, and grade level)? In which course will the RET Unit be aught? (Note: Please include this information on the Principal / Department He Recommendation Form.) |
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| • | What is your educational background, including (a) degree title(s), (b) name of degree granting institution(s), (c) year of graduation for each degree, and (d) teaching certification obtained and year of expiration (if applicable)? |
| | degree granting institution(s), (c) year of graduation for each degree, and (d) |
| | degree granting institution(s), (c) year of graduation for each degree, and (d) |
| • | degree granting institution(s), (c) year of graduation for each degree, and (d) |
| - | degree granting institution(s), (c) year of graduation for each degree, and (d) |

| 12) What is your occupational history and include a description of your special skills. |
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| 13. In this program you will be teamed with another teacher. Knowing there are various work style, what is your style? |
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| 14. How would you want your partner to work with you and how do you prefer your partner to work with you? |
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| 15. You will be required to make a presentation and create a poster, do you prefer to use Microsoft Office Software products or do you prefer Google Suite products? |
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<u>Deadline</u>: Saturday, February 1st, 2020 (Completed application and additional documents must be submitted by this date. The review process will start immediately, and be completed by Wednesday, April 1st, 2020. The application period will be open until all positions are filled. You will be contacted about a phone interview date and time. In addition, there will be a mandatory on campus orientation before the 10 finalists are announced. You will be informed about the date, time and venue of the Orientation Meeting. Application process will be open until all positions are filled.



NSF Summer Research Experience for Teachers (RET)

"Engineering Design Challenges and Research Experiences for Secondary and Community College Teachers"

Principal (secondary school only) / Department Head (community college only)
Recommendation Form for RET Applicant

All documents including the Recommendation Form and the Letter of Recommendation from the Principal (secondary school only) / Department Head (community college only) are due by Saturday, February 1st, 2020.

Your candid assessment of the applicant named will greatly assist the selection committee. Your recommendation will be used to help determine whether the candidate will be selected and receive the financial benefits of the Research Experience for Teachers (RET) summer program.

Please complete the **Recommendation Form** on the following pages. In addition to the completed form, we would appreciate a **Letter of Recommendation** from you concerning the applicant's scholarship, personality, character, professional promise and an assessment of the applicant's strengths and weaknesses. The letter from the School Principal (secondary school only) or Department Head (community college only) must provide *name*, *affiliation*, *and contact information* and should be signed, scanned and emailed as a PDF document to Lora Buchanan at Buchanll@ucmail.uc.edu.

After completing the both the **Recommendation Form** and the **Letter of Recommendation**, please <u>scan and email</u> them both to Lora Buchanan at <u>Buchanll@ucmail.uc.edu</u>. Please title the email subject: "**Applicant's Last Name – RET Recommendations**"

Although the preferred method is to email the documents, if you do not have access to a scanner or computer you may mail the **Recommendation Form** and the **Letter of Recommendation** to the address below. Please place the documents in an envelope and sign it across the seal before mailing.

Lora Buchanan
RET 2019 Grant Coordinator
(Dr. Margaret. Kupferle Lead RET PI)
University of Cincinnati
P.O. Box 210076
Cincinnati, OH 45221-0076

Work email: Buchanll@ucmail.uc.edu.

Principal (secondary school only) and/or Department Head (community college only) Recommendation Form

2020 NSF Summer Research Experience for Teachers

To Be Completed by the RET Applicant:

| Na | ame of Applicant: | | | |
|----|----------------------------------|---|--|--------------------------------|
| | I | Last | First | Middle |
| Sc | chool: | | | |
| Ac | ddress, City, State | , & Zip: | | |
| Те | elephone: | | Email: | |
| Cc | ourse in which the | RET Unit will be | taught in the 2020-21 Academic \ | /ear: |
| | o Be Completed ead (community | _ | Principal (secondary school | only) and/or Department |
| 1) | | | I classification of the applicant: porary full-time, temporary part | |
| 2) | If the applicant | is hired on a co | ntract, what are the start and er | nd dates of the contract? |
| 3) | | ob remain the sa e its classificatio | ame during the 2020-2021 Acadon? | emic Year or change, and if it |
| 4) | assigned the co | ourse, indicated | space below, please confirm th (above) in his/her RET applicat ich the RET experience will be i | ion, to teach during the 2020- |
| 5) | your school or | institution to ma | describe what types of support ake instructional/curricular char sult of this professional develor | nges that the applicant |

Using the chart below, please rate the applicant relative to other employees whom you have known in a similar capacity. If additional space is needed, or if you would like to add any other comments, please use an additional blank page.

To Be Completed by the School Principal (secondary school only) and/or Department Head (community college only):

| | Not observed | Weak | Fair | Good | Excellent | Outstanding |
|--|-----------------|------|------|------|-----------|-------------|
| Ability to analyze a problem and | ODSCI VCU | | | | | |
| formulate a solution | | | | | | |
| Ability to initiate instructional change | | | | | | |
| Ability to work cooperatively with others | | | | | | |
| Communication skills (oral and written) | | | | | | |
| Emotional maturity | | | | | | |
| Evidence of creativity and imagination | | | | | | |
| Evidence of personal character and ethics | | | | | | |
| Experimental ability | | | | | | |
| Follow-through and commitment | | | | | | |
| Leadership exhibited within the school | | | | | | |
| Overall self-confidence | | | | | | |
| Motivation to succeed in the summer RET program | | | | | | |
| Potential for RET to impact teaching performance | | | | | | |

| Signature: | Date: |
|-----------------------------|-------|
| Name (please type or print) | |
| Title: | |
| School/Institution: | |
| Number and Street Name | |
| City, State, and Zip Code | |
| Telephone | |
| E-mail | |



NSF Summer Research Experience for Teachers

"Engineering Design Challenges and Research Experiences for Secondary and Community College Teacher"

Administrative Leader or Teacher "Leader" Recommendation Form for RET Applicant

To Be Completed by another Administrative Leader or Teacher "Leader." All documents including the Recommendation Form <u>and</u> the Letter of Recommendation from the Administrative Leader or Teacher "Leader" are due by <u>Saturday</u>, <u>February 1st</u>, <u>2020</u>.

Your candid assessment of the applicant named will greatly assist the selection committee. Your recommendation will be used to help determine whether the candidate will be selected and receive the financial benefits of the Research Experience for Teachers (RET) 2020 summer program.

Please complete the **Recommendation Form** on the following page. <u>In addition</u> to the completed form, we would appreciate a **Letter of Recommendation** from you concerning the applicant's scholarship, personality, character and professional promise and an assessment of the applicant's strengths and weaknesses. The letter from the Administrative Leader or Teacher "Leader" must provide *name*, *affiliation*, *and contact information* and should be signed, scanned and emailed as a PDF document to Lora Buchanan at <u>Buchanll@ucmail.uc.edu</u>.

After completing the both the **Recommendation Form** and the **Letter of Recommendation**, please <u>scan and email</u> them both to Lora Buchanan at <u>Buchanll@ucmail.uc.edu</u>. Please title the email subject: "**Applicant's Last Name – RET Recommendations**"

Although the preferred method is to email the documents, if you do not have access to a scanner or computer you may mail the **Recommendation Form** and the **Letter of Recommendation** to the address below. Please place the documents in an envelope and sign it across the seal before mailing.

Lora Buchanan
RET 2019 Grant Coordinator
(Dr. Margaret Kupferle Lead RET PI)
University of Cincinnati
P.O. Box 210076
Cincinnati, OH 45221-0076

Work email: Buchanll@ucmail.uc.edu.

Administrative Leader or Teacher "Leader" Recommendation Form

2020 NSF Summer Research Experience for Teachers

To Be Completed by the RET Applicant: Name of Applicant: (Last) (First) (Middle) School: Address, City, State, & Zip: Telephone: Email: Using the chart below, please rate the applicant relative to other employees whom you have known in a similar capacity. If additional space is needed, or if you would like to add any other comments, please use an additional blank page. To Be Completed by the Administrative Leader or Teacher "Leader": Not observed Weak Fair Good **Excellent** Outstanding Ability to analyze a problem and formulate a solution Ability to initiate instructional change Ability to work cooperatively with others Communication skills (oral and written) **Emotional maturity** Evidence of creativity and imagination Evidence of personal character and ethics **Experimental ability** Follow-through and commitment Leadership exhibited within the school Overall self-confidence Motivation to succeed in the summer RET program Potential for RET to impact teaching performance Name (type or print) Signature: Date _____ Title: _____ School: _____ Number and Street Name _____

City, State, and Zip Code _____

Telephone _____ E-mail ____