

# CISE REU A la Carte Student Survey 2017

## 1. Introduction and Consent

### Informed Consent for CISE REU Assessment

#### Project Title and Purpose

You are invited to take a few minutes to complete a brief survey. This survey is designed to evaluate the effectiveness of the Computing & Information Sciences and Engineering Research Experience for Undergraduates (CISE REU) program in which you are a participant. This research will provide us with insight into how to make this experience more useful and rewarding for future participants. This evaluation research is separate from your REU experience; your choice to participate or refrain from participation in the research project does not affect participation in or experience in the REU. If you have questions about your REU experience, you will need to contact your REU site faculty.

Investigator: Dr. Audrey Rorrer University of North Carolina at Charlotte, Charlotte, NC 28223

#### Eligibility

Participants must be: at least 17 years old and be a current participant in a CISE REU program.

#### Overall Description of Participation for Participants

If you choose to participate, you will complete a pre-survey within the first week of your CISE REU experience which will take approximately 25 minutes; and complete a post-survey within the last week of your CISE REU experience which will also take approximately 25 minutes. You may be invited to participate in a voluntary follow up survey within the next two years.

#### Risks and Benefits of Participation

No risk or discomfort from the surveys is anticipated. You may benefit from the feeling of contributing to improving the CISE REU program for future students, and also to advancements in broadening the participation of all people in computing.

#### Volunteer Statement

You are a volunteer. The decision to participate in this study is completely up to you. If you decide to be in the study, you may stop at any time. You will not be treated any differently if you decide not to participate in the study or if you stop once you have started.

#### Confidentiality Statement

Any information about your participation, including your identity, is completely confidential. The following steps will be taken to ensure this confidentiality:

- A unique code will be generated to label your data. The relationship between this code and your identifying information will be kept strictly confidential and maintained in a secure password protected folder; this list of association will be used only to link your pre and post survey

responses and destroyed within a year of survey analysis.

• When reporting the results of surveys, care will be taken to ensure that no individual's response can be identified.

#### Statement of Fair Treatment and Respect

UNC Charlotte wants to make sure that you are treated in a fair and respectful manner. Contact the university's Research Compliance Office (704-687-3309) if you have questions about how you are treated as a study participant. If you have any questions about the actual project or study, please contact Dr. Audrey Rorrer (704-687-8648, arorrer@uncc.edu).

**Approval Date:** This form was approved for use in 2017 for use for one year.

#### Participant Consent

I have read the information in this consent form. I have had the chance to ask questions about this study, and those questions have been answered to my satisfaction. My participation in the survey is acknowledgement that I have read and understand the consent agreement, and agree to participate.

1. My participation in the survey is acknowledgement that I have read and understand the consent agreement and agree to participate.

Yes, I agree to participate in this survey.

No, I do not agree to participate in this survey.

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### 2. Survey Terminology

The CISE REU Program is comprised of multiple disciplines within computer science, information science, engineering, and cyberinfrastructure. Please think of the specific field in which you are conducting your research project as you respond to the survey items, regardless of your undergraduate major. For example, your project may be/have been focused in computational science, or human-computing interaction, or some other area. In considering your item responses, please consider the specific field applicable to your research project.

\* 2. Please indicate the specific field applicable to your research project:

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### 3. Self-Efficacy

The following section addresses how certain you are that you could perform each of the following activities right now. Select the rating that best describes your degree of confidence by using the following scale:

5 = Strongly Agree, 4 = Somewhat Agree, 3 = Neutral, 2 = Somewhat Disagree, 1 = Strongly Disagree.

3. Please rate your degree of confidence with the following statements. I can:

	Strongly Disagree	Somewhat Disagree	Neutral	Somewhat Agree	Strongly Agree
Locate primary research literature (e.g. journal articles)	<input type="radio"/>				
Understand primary research literature	<input type="radio"/>				
Formulate a research hypothesis	<input type="radio"/>				
Design an experimental test of a solution to a problem	<input type="radio"/>				
Collect data	<input type="radio"/>				
Statistically analyze data	<input type="radio"/>				
Interpret data analyses	<input type="radio"/>				
Reformulate a research hypothesis	<input type="radio"/>				
Orally communicate the results of research projects	<input type="radio"/>				
Write a research paper for publication	<input type="radio"/>				
Work with others to investigate a research problem	<input type="radio"/>				
Discuss research with graduate students	<input type="radio"/>				
Discuss research with professors	<input type="radio"/>				
Discuss research at a professional meeting or conference	<input type="radio"/>				

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### 4. Intentions toward Graduate School

The following section addresses your interest in graduate school. Please rate your level of agreement with the following statements on the corresponding scales, with 5 being strongly positive and 1 being strongly negative.

4. For me to apply to graduate school is (extremely good/extremely bad).

1 (extremely bad)  2  3  4  5 (extremely good)

5. Most people who are important to me think that (I should/should not) apply to graduate school in [my REU project] discipline.

1 (I should not)  2  3  4  5 (I should)

6. I plan to apply to graduate school in a [my REU project] discipline.

1 (extremely unlikely)  2  3  4  5 (extremely likely)

7. For me, to apply to graduate school in [my REU project] discipline is (extremely valuable/extremely worthless).

1 (extremely worthless)  2  3  4  5 (extremely valuable)

8. It is expected of me that I will apply to graduate school in [my REU project] discipline.

1 (definitely false)  2  3  4  5 (definitely true)

9. I will make an effort to apply to graduate school in [my REU project] discipline.

1 (I definitely will not)  2  3  4  5 (I definitely will)

10. For me to apply to graduate school in [my REU project] discipline is (extremely beneficial/extremely harmful).

1 (extremely harmful)  2  3  4  5 (extremely beneficial)

11. I intend to apply to graduate school in [my REU project] discipline.

1 (strongly disagree)  2  3  4  5 (strongly agree)

12. For me to apply to graduate school in [my REU project] discipline is (extremely pleasant/extremely unpleasant).

1 (extremely unpleasant)  2  3  4  5 (extremely pleasant)

13. Most people whose opinions I value would approve of me applying to graduate school in [my REU project] discipline.

1 (strongly disagree)  2  3  4  5 (strongly agree)

The follow section addresses your attitudes towards the discipline in which you are conducting your REU project. For each item, please respond using the following scale:  
**5 = Strongly Agree, 4 = Somewhat Agree, 3 = Neutral, 2 = Somewhat Disagree, 1 = Strongly Disagree.**

14. Please indicate your level of agreement with the following statements.

	Strongly Disagree	Somewhat Disagree	Neutral	Somewhat Agree	Strongly Agree
I hope that my future career will require the use of [my REU project discipline] concepts.	<input type="radio"/>				
I think [my REU project discipline] is boring.	<input type="radio"/>				
My career goals do not require that I learn [my REU project discipline] skills.	<input type="radio"/>				
I like to use [my REU project discipline] to solve problems.	<input type="radio"/>				
The challenge of solving problems using [my REU project discipline] does not appeal to me.	<input type="radio"/>				
I think [my REU project discipline] is interesting.	<input type="radio"/>				
I expect that learning to use [my REU project discipline] skills will help me achieve my career goals.	<input type="radio"/>				
I hope that I can find a career that does not require the use of [my REU project discipline] concepts.	<input type="radio"/>				
The challenge of solving problems using [my REU project discipline] appeals to me.	<input type="radio"/>				
I do not like using [my REU project discipline] to solve problems.	<input type="radio"/>				
I would voluntarily take additional [my REU project discipline] courses if I were given the opportunity.	<input type="radio"/>				
Developing [my REU project discipline] skills will be important to my career goals.	<input type="radio"/>				

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### 6. Help Seeking and Coping

The following scale addresses how you would react if you performed poorly on an exam. For each item, please respond using the following scale:  
**5 = Strongly Agree, 4 = Somewhat Agree, 3 = Neutral, 2 = Somewhat Disagree, 1 = Strongly Disagree.**

15. When I do poorly on an important exam, typically:

	Strongly Disagree	Somewhat Disagree	Neutral	Somewhat Agree	Strongly Agree
I do what has to be done one step at a time	<input type="radio"/>				
I think about how I might best handle the problem	<input type="radio"/>				
I try to come up with a strategy	<input type="radio"/>				

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### 7. GRIT

**Please respond to the following 8 items. Be honest – there are no right or wrong answers!**

16. Please respond to the following 8 items. Be honest – there are no right or wrong answers!

	Not like me at all	Not much like me	Somewhat like me	Mostly like me	Very much like me
New ideas and projects sometimes distract me from previous ones	<input type="radio"/>				
Setbacks don't discourage me	<input type="radio"/>				
I have been obsessed with a certain idea or project for a short time but later lost interest	<input type="radio"/>				
I am a hard worker	<input type="radio"/>				
I often set a goal but later choose to pursue a different one	<input type="radio"/>				
I have difficulty maintaining my focus on projects that take more than a few months to complete	<input type="radio"/>				
I finish whatever I begin	<input type="radio"/>				
I am diligent	<input type="radio"/>				

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### 8. Research Skills and Knowledge

Please consider the primary discipline of your REU project when responding to the items below.

17. Please indicate how much you know about the following on a scale from 1 to 5, with 1 being "nothing at all" and 5 being "a great deal."

	1, not at all	2	3	4	5, a great deal
Research proposal write up	<input type="radio"/>				
Research presentation preparation	<input type="radio"/>				
Research presentation	<input type="radio"/>				
Application to Graduate school	<input type="radio"/>				
Technical & scientific writing tools	<input type="radio"/>				
Ethics in scientific research	<input type="radio"/>				
Authorship citations	<input type="radio"/>				
Project management	<input type="radio"/>				
Application of the scientific method	<input type="radio"/>				
Conference participation	<input type="radio"/>				
Analyzing data with statistics or other tools	<input type="radio"/>				
Problem-solving in general	<input type="radio"/>				
Formulating a research hypothesis that could be answered with data	<input type="radio"/>				
Identifying appropriate research methods and designs	<input type="radio"/>				
Understanding the theory and concepts guiding a research project	<input type="radio"/>				
Defending an argument when asked questions	<input type="radio"/>				
Explaining my project to people outside my field	<input type="radio"/>				
Understanding and summarizing journal articles	<input type="radio"/>				
Relate results to the "bigger picture"	<input type="radio"/>				
The nature of the job of a researcher	<input type="radio"/>				
Working collaboratively with others	<input type="radio"/>				
What graduate school is like	<input type="radio"/>				
Career options in research	<input type="radio"/>				
Working independently	<input type="radio"/>				

18. Below, we ask you questions about leadership and teamwork. By leadership we mean getting people to work together effectively to answer a question or solve a problem (e.g., motivating good performance, dealing with conflict, etc.). Teamwork includes communication, collaboration, etc. Please choose the one number that indicates your agreement with the following statements.

	Strongly Disagree	Somewhat Disagree	Neutral	Somewhat Agree	Strongly Agree
I know how to cooperate effectively as a member of a team.	<input type="radio"/>				
I have high confidence in my ability to function as part of a team.	<input type="radio"/>				
I can provide strong support for other members of any team that I am on.	<input type="radio"/>				
I know how to be a good team member.	<input type="radio"/>				
I know a lot about what it takes to be a good leader.	<input type="radio"/>				
I know what it takes to help a team accomplish its task.	<input type="radio"/>				
I am confident of my ability to influence a team I lead.	<input type="radio"/>				
I know how to encourage good team performance.	<input type="radio"/>				
I am able to allow other team members to contribute to the task when leading a team.	<input type="radio"/>				

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### 10. Scientific Identity

19. The following questions ask how you think about yourself and your personal identity. We want to understand how much you think that being a scientist is part of who you are. Please choose the one number that indicates your agreement with the following items.

	Strongly Disagree	Somewhat Disagree	Neutral	Somewhat Agree	Strongly Agree
In general, being a scientist is an important part of my self-image.	<input type="radio"/>				
I have a strong sense of belonging to the community of scientists.	<input type="radio"/>				
Being a scientist is an important reflection of who I am.	<input type="radio"/>				
I have come to think of myself as a "scientist."	<input type="radio"/>				
I feel like I belong in the field of science.	<input type="radio"/>				
I am a scientist.	<input type="radio"/>				

11. Mentoring [Post Survey Only]

The following questions ask about your view of the faculty or graduate student who served as your primary mentor, or guide, throughout your research project.

20. My primary mentor during the summer REU program was:

- A faculty advisor
- A graduate student

Other (please specify):

21. My primary mentor during the summer REU program was:

- male
- female

22. Please indicate the extent to which you agree with each statement below about your mentor. My mentor:

	Strongly Disagree	Somewhat Disagree	Neutral	Somewhat Agree	Strongly Agree
was accessible	<input type="radio"/>				
demonstrated professional integrity	<input type="radio"/>				
demonstrated content expertise in my area of need	<input type="radio"/>				
was approachable	<input type="radio"/>				
was supportive and encouraging	<input type="radio"/>				
provided constructive and useful critiques of my work	<input type="radio"/>				
was helpful in providing direction and guidance on research project issues	<input type="radio"/>				
answered my questions satisfactorily (e.g. timely, clear, comprehensive)	<input type="radio"/>				
acknowledged my contributions appropriately	<input type="radio"/>				
suggested appropriate resources	<input type="radio"/>				
challenged me to extend my abilities	<input type="radio"/>				

## 12. Overall Program Satisfaction [Post Survey Only]

**These items are intended to be generally descriptive of your opinion of the overall experience. Please rate your satisfaction level by using the scale below.**

23. How satisfied were you with:

	Highly Dissatisfied	Somewhat Dissatisfied	Neutral	Somewhat Satisfied	Highly Satisfied
Your faculty advisor	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Your housing arrangements (if applicable)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The program in general	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Your research experience	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Your interaction with project staff	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Your interaction with other students	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

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### 13. Demographic Information

**The following section asks general personal information, and is confidential. Care will be taken to protect individual responses.**

\* 24. At what institution are you participating in the REU program?

Other (please specify)

25. What college or university are you currently attending?

26. What is your gender?

Female

Male

27. What is your age?

28. What is your ethnicity?

- Asian
- African American
- Hispanic/Latino
- Native Hawaiian/Pacific Islander
- Caucasian/White
- Native American/American Indian
- Multi-ethnic

Other (please specify):

29. Do you have a documented disability?

- Yes
- No

30. What level will you be in school in the upcoming fall semester?

- Freshman
- Sophomore
- Junior
- Senior

Other (please specify)

31. What is your expected graduation from your current program?

	Month	Year
Month and Year	<input type="text"/>	<input type="text"/>

32. What is your preferred email address for being contacted for future follow up?

33. What is your first name?

34. What is your last name? (Your name is only used to match your pre-survey response to your post-survey response.)

35. Do you plan to participate in additional REUs?

Yes  No  Uncertain

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### 14. General Comments [Post Survey Only]

**Your general feedback is important to us.**

36. What was the most rewarding experience for you during the REU project?

37. What was the most frustrating experience for you during the REU project?

38. Any additional comments and suggestions are welcome below.

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15. Thank you.

**Thank you for completing the REU Site survey. Your responses will help us improve the program for future years. We wish you great success in your future endeavors.**