



## Natural Hazards Engineering Research Infrastructure

### Facilitator

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### Program Description and Objectives

The goals of the NHERI REU summer program include:

- Providing research experiences for undergraduate students
- Providing career exposure within the NHERI fields
- Providing mentorship with an experienced engineer/researcher

### Site Events

Each REU student will be assigned to a NHERI site. You are expected to follow all rules at each of your sites. Faculty mentors and site managers will provide feedback on your performance. If you have any questions, please ask.

### REU Meetings

You are expected to participate in all NHERI REU research and career development meetings. If there is an extenuating circumstance, please send an email as soon as you are aware of the situation to [robin.nelson@utsa.edu](mailto:robin.nelson@utsa.edu).

### Readings and Instructional Materials:

IEEE Conference Template

*How to Write a Research Journal Article in Engineering & Science*

Journal articles that address your topic

Other scholarly sources as necessary

### Expectations:

NHERI expects you to act and respond professionally in your interactions with others and in completing your assignments and deliverables. Failure to do so may result in loss of pay and/or dismissal from the program.

## Course Schedule for Block I & II (tentative and subject to change):

REU Block I				
	Week	Deliverables due	Topics	Meetings: Research & Career Development
1	June 1-3	<b>Wednesday, June 1</b> Pre-Assessment	Welcome to NHERI REU — get to know your site, your peers, and your mentors.	June 2 Block I Orientation 10am-12pm Central
2	June 6-10	<b>Friday, June 10</b> Timesheet 1 Reflection 1 Media Release Sample Journal Article Study Consent	Let's Review— identify, read, and write 5 annotations on journal articles <i><b>Skill—identify, summarize, paraphrase, and cite scholarly sources.</b></i>	<b>Research Meeting#1</b> June 6, 10am-12pm Central
3	June 13-17	<b>Friday, June 17</b> Timesheet 2 Reflection 2 Annotated Bibliography First Meeting Form	Introducing . . .your topic! Write the draft of your introduction. <i><b>Skill—hook, inverted triangle writing</b></i>	<b>Research Meeting#2</b> June 13, 10am-12pm Central <b>Career Development Workshop#1: Social Media &amp; Networking</b> June 15, 11am-1pm Central
4	June 20-24	<b>Friday, June 24</b> Timesheet 3 Reflection 3 Introduction Draft		
5	June 27-July 1	<b>Friday, July 1</b> Timesheet 4 Reflection 4 Literature Review Draft Natural Hazards Module Personal Statement	The What—Dig into your topic and uncover the gap to write your literature review. <i><b>Skill—identify purpose, identify gap</b></i>	<b>Research Meeting#3</b> June 27, 10am-12pm Central  <b>Career Development Workshop#2: Applying to Graduate School</b> June 29, 11am-1pm Central
6	July 4-8	<b>Friday, July 8</b> Timesheet 5 Reflection 5 Instrumentation & Methodology Draft	The How—Explain the materials, instruments, and methods you will use to conduct your research. <i><b>Skill—quantitative research methods, format and figures</b></i>	<b>Research Meeting#4</b> Tuesday, July 5, 10am-12pm Central  <b>Career Development Workshop#3: Diversity, Equity, and Inclusion</b> July 6, 11am-1pm Central

7	July 11-15	<b>Friday, July 15</b> Timesheet 6 Reflection 6 Peer Review	Peer Review—Learn about the journal peer review process and learn to give and take feedback. <i>Skill—editing and revising</i>	<b>Research Meeting#5</b> July 11, 10am-12pm Central
8	July 18-22	<b>Friday, July 22</b> Timesheet 7 Reflection 7 Revision Lesson Plan	Mission Objectives- Develop a lesson plan for your site to use with K-12 students. <i>Skill- writing objectives and lesson plans</i>	<b>Research Meeting#6</b> July 18, 10am-12pm Central  <b>Career Development Workshop#4: Industry Career Panel &amp; Career Exploration</b> July 20, 11am-1pm Central
9	July 25-29	<b>Friday, July 29</b> Timesheet 8 Reflection 8	The Closing . . . write a draft of your results, discussion, and conclusion. <i>Skill— analysis and reporting of data</i>	<b>Research Meeting#7</b> July 25, 10am-12pm Central  <b>Career Development Workshop#5: Career in Research or Academia</b> July 27, 11am-1pm Central
10	August 1-5	<b>Friday, August 5</b> Timesheet 9 Reflection 9 Final Paper Draft Cover Letter & Resume	Preparing for the Next Steps—Continue writing, revising, and provide presentation feedback.	<b>Research Meeting#8</b> August 1, 10am-12pm Central  <b>Presentation Practice</b> August 3, 8am-6:00pm Central
10	August 8-12	<b>Tuesday, August 9</b> Timesheet 10 <i>Reflection 10: In-person Focus Group</i> Final Paper Final Presentation Final Research Poster Post-assessment	Finish Strong— Publish your research and share your experience and ideas to improve the program in the post-assessment. <i>Skill- publish, qualitative research methods, Data Depot</i>	
RS	August 8-9	Upload poster, paper, presentation to Data Depot no later than <b>August 15.</b>	Research in Action— Present your poster and paper for mentors and peers.	<b>NHERI REU Research Symposium @ TACC, August 8-9, 8:00am-5:00pm Central</b>

## REU Block II

	Week	Deliverables due each Friday	Topics	Meetings: Research & Career Development
1	June 13-17	<b>Monday, June 13</b> Pre-Assessment <b>Friday, June 17</b> Timesheet 1 Reflection 1 Media Form Sample Publication Study Consent	Welcome to NHERI REU — get to know your site, your peers, and your mentors. <i>Skill—identify scholarly sources</i>	<b>NHERI REU Block 2 Orientation</b> June 14, 12am-2pm Central <b>Career Development Workshop #1: Social Media Network</b> June 22, 11am-1pm Central
2	June 20-24	<b>Friday, June 24</b> Timesheet 2 Reflection 2 Annotated Bibliography First Meeting Form	Let's Review— Review the literature that supports your topic and write an annotated bibliography for 5 <i>journal articles</i> . <i>Skill—summarize, paraphrase, cite</i>	<b>Research Meeting#1</b> Friday, June 17, 1-3pm Central
3	June 27-July 1	<b>Friday, July 1</b> Timesheet 3 Reflection 3 Introduction Draft Natural Hazards Module	Introducing . . . your topic! Write the draft of your introduction. <i>Skill—hook, inverted triangle writing</i>	<b>Research Meeting#2</b> June 27, 1-3pm Central  <b>Career Development Workshop#2: Applying to Graduate School</b> June 29, 11am-1pm Central
4	July 4-8	<b>Friday, July 8</b> Timesheet 4 Reflection 4 Literature Review Draft Personal Statement	The What—Dig into your topic and uncover the gap to write your literature review. <i>Skill—identify purpose, identify gap</i>	<b>Research Meeting#3</b> July 5, 1-3pm Central  <b>Career Development Workshop#3: Diversity, Equity, and Inclusion</b> July 6, 11am-1pm Central
5	July 11-15	<b>Friday, July 15</b> Timesheet 5 Reflection 5 Instrumentation & Methodology Draft <i>*Natural Hazards Workshop</i>	The How—Explain the materials, instruments, and methods you will use to conduct your research. <i>Skill—quantitative research methods, format and figures</i>	<b>Research Meeting#4</b> July 11, 1-3pm Central

6	July 18-22	<b>Friday, July 22</b> Timesheet 6 Reflection 6 Peer Review	Peer Review—Learn about the journal peer review process and learn to give and take feedback. <b>Skill—editing and revising</b>	<b>Research Meeting#5</b> July 18, 1-3pm Central  <b>Career Development Workshop#4: Industry Career Panel &amp; Career Exploration</b> July 20, 11am-1pm Central
7	July 25-29	<b>Friday, July 29</b> Timesheet 7 Reflection 7 Revision Lesson Plan	Mission Objectives- Develop a lesson plan for K-12 students. <b>Skill- writing objectives and lesson plans</b>	<b>Research Meeting#6</b> July 25, 1-3pm Central  <b>Career Development Workshop#5: Career in Research or Academia</b> July 27, 11am-1pm Central
8	August 1-5	<b>Friday, August 5</b> Timesheet 8 Reflection 8 Resume & Cover Letter	The Closing . . . write a draft of your results, discussion, and conclusion. <b>Skill—analysis and reporting results</b>	<b>Research Meeting#7</b> August 1, 1-3pm Central  <b>Presentation Practice</b> August 3, 8am-6pm Central
9	August 8-12	<b>Tuesday, August 9</b> <i>Reflection 9: In-person Focus Group</i>  <b>Friday, August 12</b> Timesheet 9 Final Poster Final Presentation	Preparing for the Next Steps—Continue writing, revising, and provide presentation feedback.	
10	August 15-19	<b>Friday, August 19</b> Timesheet 10 Reflection 10 Final Paper Post-assessment	Finish Strong—Publish your research and share your experience and ideas to improve the program in the post-assessment. <b>Skill- publish, qualitative research methods, Data Depot</b>	<b>Research Meeting#8</b> August 15, 12-2pm Central
RS	August 8-9	Upload poster, paper, presentation to Data Depot no later than <b>August 26.</b>	Research in Action—Present your poster and paper for mentors and peers.	<b>NHERI REU Research Symposium at TACC, August 8-9, 8:00am-5:00pm</b>