Enhancing STEM Teacher Leadership Through Equity And Advocacy Development (LEAD) in Houston
The LEAD HOUSTON Fellowship

LEAD your classroom, LEAD Houston, LEAD the world!
Introductions...

Dr. Paige Evans (PI), Clinical Professor

Mariam Manuel, PhD Candidate, (Co-PI)
Instructional Assistant Professor; Engineering Education Instructor

Dr. Jennifer Chauvot, (Co-PI) Associate Professor; Chair, Dept of Curriculum and Instruction

Dr. Leah McAlister-Shields,
Academic Program Manager and Professional Development Coordinator
Overview of LEAD Houston

NSF Grant Funded Program:

• 14 month Master’s in STEM Education
• Four years of Professional Development with $10,000 Stipends years 2-5
What is this program about?

- Courses and PD will focus on topics such as:
  - Understanding the significance of students’ cultural and educational experiences to inform STEM teaching and learning;
  - Developing teacher leadership skills;
  - The roles of technology and inquiry-based instruction in STEM education; and
  - Engineering design
How is this being paid for?

- The agency is the National Science Foundation (NSF), Noyce Track 3
- Scholarship funding will cover the costs of the M.Ed.
- Salary supplement, $10,000 for each of the four years.
Who can apply?

- Grades 6-12 STEM (Mathematics, Science, Engineering, or Comp Sci) Classroom Teachers
- Must have at least 3 years teaching secondary science or math in a high-need public school district
- Content Expertise (degree-based or professional development-based)
- Greater Houston Area Public School Teachers
How many teachers will be selected?

- 15 will be chosen to start Summer, 2019
  - August 2020 graduation
  - Professional development activities through May 2024
What are my commitments?

- 5 year commitment
  - 14 months: 30-hour rigorous M.Ed. program in Curriculum and Instruction that emphasizes STEM Education
  - Participation in four years of professional development
- Leading professional development at your school and/or district
- Commitment to stay in the classroom for the duration of the fellowship
What are my school district’s commitment?

- Provide opportunities for leadership
  - Fellows will serve as mentor teachers and cooperating teachers for preservice teachers at University of Houston

- Support your efforts of in providing professional development at the campus and/or district level

- Ensure that you do not receive a lower base salary due to the salary supplements provided as part of the grant
What happens if I drop out?

- Before the completion of one year of the teaching service commitment, the total amount of scholarship or stipend received by the individual must be repaid.

- After the completion of one year of the teaching service commitment, one-half of the total amount of salary supplements received by the individual must be repaid.
Master’s Program Delivery

- Designed with classroom teachers in mind!
  - Hybrid: Face-to-face and online instruction
  - Summer coursework is predominantly face-to-face
  - Fall and Spring coursework is predominantly online
## Cohort 1 Sequence (subject to change for cohort 2)

<table>
<thead>
<tr>
<th>Semester</th>
<th>Course</th>
<th>Big Ideas</th>
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<tbody>
<tr>
<td><strong>Summer 1 (9 hours)</strong></td>
<td><strong>Issues in Science &amp; Math Education</strong></td>
<td>Culturally responsive teaching (CRT), STEM integration, equity, social justice, teacher leadership</td>
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<td><strong>Fundamentals of Engineering Design</strong></td>
<td>History of engineering education, standards, issues; engineering design methods</td>
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<td><strong>CUIN Capstone Seminar</strong></td>
<td>Initial development of Capstone Project</td>
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<td><strong>Fall 1 (9 hours)</strong></td>
<td><strong>Teaching Science/Math with Technology</strong></td>
<td>Role of technology in teaching STEM concepts; practical application of theories in technology; inquiry-based instruction of STEM concepts; reflection on learning outcomes with chosen instructional practices; Professional seminar focus on research in education, community education, and technology.</td>
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<td><strong>Science &amp; Math Instruction in the Secondary School</strong></td>
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<td><strong>CUIN Professional Seminar I</strong></td>
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<td><strong>Winter Mini (3 hours)</strong></td>
<td><strong>Education in a Multicultural Society</strong></td>
<td>CRT, equity, social justice, theories of multicultural education and application to lesson development</td>
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<td><strong>Spring 1 (6 hours)</strong></td>
<td><strong>Curriculum and Development in Science &amp; Math</strong></td>
<td>Social &amp; political factors in curriculum development in STEM</td>
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<td><strong>CUIN Professional Seminar II</strong></td>
<td>Teachers as leaders, best practices, equity &amp; social justice</td>
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<td><strong>Summer 2 (3 hours)</strong></td>
<td><strong>Engineering Design in Math and Science</strong></td>
<td>Project-based learning infused with engineering education; finalize capstone project and presentation; August graduation</td>
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So What is a Capstone Project?

- Culminating final project for Master’s degree that relates to your field and interests
- Similar to a Master’s thesis
- Required component of the Master’s degree
- More information provided during orientation
What about the 4 years after the M.Ed. program?

- Summer NMSI Laying the Foundation Courses
- Summer week-long PD with various topics including Culturally Relevant Teaching; Instructional Coaching; and Policy Advocacy
- Becoming and Mentor or Cooperating Teacher for preservice teachers
- Virtual and face to face meetings (one per semester)
- Conference opportunities
- Overall leadership development
National Math and Science Initiative (NMSI) Partnership

- **NMSI’s Laying the Foundation (LTF).** LTF courses are teacher-to-teacher STEM education modules aimed at building the capacity of students, schools and districts.
- Fellows will partake in the NMSI LTF program during Years 1-3 after which they will consult on the LTF curriculum with regards to aspects of culturally responsive teaching as part of the NMSI Train-the-Trainer workshop during Year 4.
Tell me more about the Fellowship...

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<th></th>
<th>Year 1</th>
<th>Year 2</th>
<th>Year 3</th>
<th>Year 4</th>
<th>Year 5</th>
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<td>Sum</td>
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<tr>
<td>Summer NMSI LTF Courses (Years 1-3)</td>
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<td>Summer NMSI LTF Train the Trainer (Years 4)</td>
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<td>Virtual and Face to Face Fall and Spring Meetings (Years 1-5)</td>
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<td>Summer PD on Coaching (Years 3)</td>
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<td>MTFs serve as Mentor teachers to Preservice Teachers (Years 3-5)</td>
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<td>CRT Self-Reflection Analysis (Year 1)</td>
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<td>Summer PD on CRT (Year 2)</td>
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<td>CRT infused lessons taught by MTFs STEM classes (Years 2-5)</td>
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<td>Summer PD on Policy Advocacy (Years 4-5)</td>
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<td>MTFs lead PD (local effort) (Years 4 and 5)</td>
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What is the application timeline?

- **January 21, 2019**: Application deadline for 2019 applicants - all materials must be submitted by this date.
- **February**: Skype interviews conducted.
- **March 1, 2019**: Students notified of acceptance.
- **March 8, 2019**: Students must turn in a formal acceptance document.
- **April 13, 2019**: Mandatory program orientation.
- **June 5, 2019**: Program for cohort 2019 begins.
What materials need to be submitted for the application?

- Online application
- 3 Professional Letters
- Personal Statement
- Resume
- Official transcripts
FAQs

Will updated to the link on the website:

http://www.uh.edu/education/cuin-stem/
Get on our mailing list…

☐ And if you want this PowerPoint…

☐ Please complete this form:

https://tinyurl.com/LHInterestForm
Contacts

- Admissions: Ms. Britney Ikner: baikner@central.uh.edu
- The M.Ed. program: Dr. Jennifer Chauvot: jchauvot@uh.edu
- General questions related to fellowship: Dr. Paige Evans pevans@uh.edu
Questions?

Thank you for your interest in the LEAD Houston Fellowship!