

# FRANCESCA MARIA LYRA

she/her/hers  
francescalyra@utexas.edu  
(512) 293-3085

## EDUCATION

<b>The University of Texas at Austin</b> Bachelor of Science and Arts, Biology <i>Certificate: Secondary Teaching (concentration in biology, chemistry, physics, &amp; geology)</i>	Austin, TX <i>expected: May 2021</i>
---	---

## FELLOWSHIPS AND SCHOLARSHIPS

University of Georgia Undergraduate Biology Education Research Fellow <i>funded by National Science Foundation</i>	2020
Ronald E. McNair Scholar	2020
Austin Independent School District Future-Teacher Scholar	2019
Jane Sanford Beasley Scholar	2018
Texas Interdisciplinary Plan Scholar	2017
University Leadership Network Scholar	2017
Hutto Education Foundation Scholar	2017

## RESEARCH EXPERIENCE

<b>Ronald E. McNair Scholars / Learning and Motivational Beliefs Lab</b> <i>Undergraduate Researcher</i>	Austin, TX Aug. 2020 – Present
---	-----------------------------------

Advisers: Dr. Katherine Muenks and Dr. Tia Madkins

- Investigating STEM professor culture at R1 universities and how it affects first generation and minoritized students
- Writing an article to be submitted to the University of Texas McNair Journal

<b>University of Georgia Undergraduate Biology Education Research Fellowship</b> <i>Undergraduate Fellow</i>	Athens, GA May 2020 – Aug. 2020
---	------------------------------------

Advisers: Dr. Erin Dolan and Dr. Lisa Limeri

- Assisted in designing an instrument to measure undergraduate mindsets towards STEM success and experience
- Attended seminars and workshops that covered ethics, social justice, pedagogy, and STEM equity topics
- Performed interviews on participants taking survey

<b>Freshman Research Initiative</b> <i>Student Researcher</i>	Austin, TX Jan. 2018 – May 2018
--	------------------------------------

- Synthesized and characterized novel lanthanide imine complexes
- Assisted in structural determination via single x-ray crystallography, 1D <sup>1</sup>H-NMR, and fluorimetry

## TEACHING EXPERIENCE

<b>McCallum High School</b> <i>Anatomy and Physiology Student-Teacher</i>	Virtual Jan. 2021 – May. 2021
--	----------------------------------

- Created curriculum focusing on the COVID-19 pandemic
- Developed virtual activities and projects for the online classroom format

<b>Manor New Technology High School</b> <i>Medical Microbiology Student-Teacher</i>	Virtual Aug. 2020 – Nov. 2020
--	----------------------------------

- Created curriculum focusing on the COVID-19 pandemic
- Developed virtual activities and projects for the online classroom format

<b>Crockett High School</b> <i>Aquatic Science Student-Teacher</i>	Austin, TX Aug. 2019 – Dec. 2019
---	-------------------------------------

- Created and executed lesson plans with topics surrounding aquatic animal biology and environmental science
- Performed administrative tasks and analyzed student work
- Assisted second language learners

<b>Boys and Girls Club Austin</b>	Austin, TX
-----------------------------------	------------

### *Engineering and Science Educator*

May 2019 – Sept. 2019

- Facilitated interactive classroom discussions covering topics of computer science, engineering, and natural sciences
- Differentiated instruction for students with identified needs, including ADHD, autism, and language-based learning disabilities
- Planned lessons and activities for over 100 kindergarten-fifth grade students in the Austin area

### **Murchison Middle School**

Austin, TX

#### *Honors Biology Student-Teacher*

Jan. 2019 – May 2019

- Responsible for ensuring student comprehension of biological concepts and provided additional support to students who required additional guidance
- Curated biology curriculum materials for accelerated students

### **Brentwood Elementary**

Austin, TX

#### *Mathematics Student-Teacher*

Aug. 2018 – Dec. 2018

- Produced innovative lesson plans that aligned with TEKS

## **PRESENTATIONS**

---

### **Discipline-Based Education Research Conference (X-DBER) – University of Nebraska-Lincoln**

Virtual

#### *Co- Presenter*

March 2021

- Presented and facilitated discussions on results from STEM undergraduate mindset belief research  
**Lyra, F. M.,** Limeri, L. B., Mastronardo, H., Patel, J., Carter, N. T., & Dolan, E. L. (2020) The Undergraduate Lay Theories of Abilities (ULTrA) Survey. Undergraduate Biology Education Research Symposium, virtual conference.

### **McNair Senior Seminar Series**

Virtual

#### *Presenter*

October 2020

- Presented on the impacts of imposter syndrome in STEM fields  
**Lyra, F. M.** (2020) Imposter Syndrome in STEM at the University. McNair Senior Seminar Series, virtual seminar.

### **Undergraduate Biology Education Research Symposium**

Virtual

#### *Presenter*

July 2020

- Presented and facilitated discussions on results from STEM undergraduate mindset belief research  
**Lyra, F. M.,** Limeri, L. B., Mastronardo, H., Patel, J., Carter, N. T., & Dolan, E. L. (2020) The Undergraduate Lay Theories of Abilities (ULTrA) Survey. Undergraduate Biology Education Research Symposium, virtual conference.

### **Society for the Advancement of Biology Education Research (SABER)**

Virtual

#### *Co-Presenter*

July 2020

- Presented and facilitated discussions on results from STEM undergraduate mindset belief research  
**Lyra, F. M.,** Limeri, L. B., Mastronardo, H., Patel, J., Carter, N. T., & Dolan, E. L. (2020) The Undergraduate Lay Theories of Abilities (ULTrA) Survey. Society for the Advancement of Biology Education Research, virtual conference.

## **EMPLOYMENT**

---

### **2400 Nueces Apartments; Jester East Dormitory**

Austin, TX

#### *Resident Assistant*

Aug. 2018 – Present

- Conduct monthly floor meetings and frequent room drop-ins to discuss events, developments, and concerns
- Execute emergency response procedures
- Manage in residence life office for 10 to 15 hours per week performing administrative duties

### **Texas Interdisciplinary Plan**

Austin, TX

#### *Natural Sciences Mentor*

Aug. 2018 – May 2020

- Created professional development and academic success initiatives for first year students to participate in
- Intimately mentored a cohort of five students each academic year
- Provided comprehensive emotional and academic support to first-year science students

## **ORGANIZATIONS**

---

Resident Assistant Association - *Senator*

Aug. 2019 – Present

Association for Women in Science - *Member*

Aug. 2020 – Present

Math and Science Teachers of Tomorrow - *Member*

Aug. 2018 – Present

Texas Interdisciplinary Plan Community Outreach – *Member*

Aug. 2017 – May 2018

## **PERSONAL SKILLS AND INTERESTS**

---

### **Skills:**

- Portuguese: Native speaker, reader, writer
- Spanish: Intermediate speaker, reader, writer
- Proficient in R Studio

### **Research Interests:**

- First-generation experiences
- Equity and Social Justice in STEM Education
- Curriculum Design
- Bilingual Education