

CURRICULUM VITAE

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Updated: October 6, 2026

ACADEMIC POSITIONS:

- | | |
|--------------|---|
| 2022-Present | Assistant Professor of Instruction (non-tenure track)
Department of Epidemiology
UTHealth Houston School of Public Health
Houston, TX |
| 2014-2021 | Graduate Teaching Assistant
Department of Epidemiology
UTHealth Houston School of Public Health
Houston, TX |
| 2014-2021 | Graduate Research Assistant
Department of Epidemiology
UTHealth Houston School of Public Health
Houston, TX |

EDUCATION:

- | | |
|-----------|--|
| 2017-2021 | PhD, Epidemiology
UTHealth Houston School of Public Health
Houston, TX.
<i>Minors in Biostatistics and Environmental & Occupational Health Science</i>
<i>Thesis: At the intersection of inflammation and the mucosal microbiome: the impact of type 2 diabetes in Mexican American adults.</i> |
| 2014-2015 | MPH, Epidemiology
UTHealth Houston School of Public Health
Houston, TX.
<i>Thesis: Clostridium difficile quorum-sensing molecule alters the Staphylococcus aureus toxin expression profile.</i> |
| 2002-2006 | BA, Kinesiology
Rice University
Houston, TX. |

PROFESSIONAL DEVELOPMENT / FELLOWSHIPS

2026-2027 **Teaching Fellow, UTHealth Houston Health Educators Fellowship Program**
An 18-month certificate program designed to advance the teaching skills of faculty and support the educational mission of all 7 UTHealth Houston schools. Coursework includes: teaching essentials, self-reflection and peer coaching, student evaluation and feedback, responsible use of AI in the classroom and for educational research, educational research design and conduct, team-based learning, educational leadership, understanding students, accessibility, and accommodations, and developing a teaching philosophy.

HONORS AND AWARDS:

2026 ***Graduate Marshal for the 2026 School of Public Health Commencement***
Nominated and chosen by the UTHealth Houston SPH student body on the basis of Teaching Excellence (1st runner up for the 2026 SPH McGovern Outstanding Teaching Award)

2025 ***Recipient***
2025 Excellence in Academic Advising Award
Nominated and chosen by the UTHealth Houston SPH student body

2025 ***Nominee***
Faculty Award: Excellence in Teaching Award
Nomination as a teaching team with Drs. Elena Feofanova and Audrey Choh by peers at UTHealth Houston SPH

2025 ***Nominee***
Palmer Beasley Innovation Award
Nomination as a teaching team with Drs. Elena Feofanova and Audrey Choh by peers at UTHealth Houston SPH

2024 ***Commencement Speaker***
Student Address
Delivered the Student Address UTHealth Houston School of Public Health 2024 Graduation Ceremony as the 2024 McGovern Outstanding Teacher of the Year Awardee

2024 ***Recipient***
2024 McGovern Outstanding Teacher of the Year Award
Nominated and chosen by the UTHealth Houston SPH student body

2024 ***Co-Recipient***
Teaching Innovation Award
Learning by Doing! Expanding, Harmonizing, & Sharing Effective Field Study Experiences for Epidemiology II
Office of Instructional Development, UTHealth Houston SPH

2023 ***Inaugural Co-Recipient & Lead Faculty***
Teaching Innovation Award
Building Strong Foundational Knowledge Through Student Engagement in Asynchronous Epidemiology I

- Office of Instructional Development, UTHealth Houston SPH
- 2023 ***Inaugural Co-Recipient***
Teaching Innovation Award
Encouraging Student Engagement in Asynchronous Epidemiology II
Office of Instructional Development, UTHealth Houston SPH
- 2022 ***Member***
Delta Omega Honorary Society in Public Health
- 2022 **‘New and Notable’ manuscript in the journal *mSphere***
For a publication in the journal, Original Antigenic Sin and the Downside of Immunological Memory, that achieved over 30,000 downloads in the year since its publication.
- 2021 ***Recipient***
2021 Guy and Alissa McDaniels Memorial Scholarship
Student scholarship awarded for academic merit by the UTHealth Houston School of Public Health
- 2020 ***Recipient***
2020 Guy and Alissa McDaniels Memorial Scholarship
Student scholarship awarded for academic merit awarded by the UTHealth Houston SPH
- 2019 ***Recipient***
2019 Guy and Alissa McDaniels Memorial Scholarship in Oncology and Infectious Disease
Student scholarship awarded for academic merit awarded by the UTHealth Houston SPH
- 2018 ***Recipient***
Mercedes-Benz of Sugar Land Scholarship
Student scholarship awarded for academic merit awarded by the UTHealth Houston SPH
- 2018 ***Recipient***
The Catherine Tyrrell Campbell Endowed Scholarship in Public Health
Student scholarship awarded for academic merit awarded by the UTHealth Houston SPH
- 2017 ***Recipient***
Outstanding New PhD Student Scholarship
Student scholarship awarded for academic merit and the potential to contribute to the field of public health awarded by the UTHealth Houston SPH Admission’s Committee

TEACHING EXPERIENCE & COURSE DEVELOPMENT OVERVIEW:

Instructor – UTHealth Houston School of Public Health

2026-2027 Academic Year

Introduction to Epidemiology (PHM 2612)

Fall 2026

Lead Instructor – 100% effort; 30 students

Ongoing Course development: *Updated all course materials including lectures, homework assignments, Check Your Learning Quizzes, and class activities to be ADA compliant. As part of this process, the*

Canvas site was re-designed from scratch to comply with new design tools and materials, improve student interface with materials to boost their learning experience and to ensure the course fully met all required ADA standards.

Introduction to Epidemiology (PHM 2612)

Fall 2026

Instructor / faculty mentor – 10% effort; 32 students

Provided guidance and support to the other two faculty that were new to either teaching or the course via suggestions of effective teaching practices, curriculum design, student engagement strategies, and assessment methods. Served as a resource for instructional improvement through consultation, feedback, sharing of best practices, and fostering professional growth in teaching and learning.

Field Epidemiology (PH 2615)

Fall 2026

Lead Instructor – 100% effort; 21 students

Ongoing Course development: *Canvas site was re-designed from scratch to comply with new design tools and materials, improve student interface with materials to boost their learning experience and to ensure the course fully met all required ADA standards. Field Day materials were updated to employ REDcap and provide additional student experience with survey tools.*

2025-2026 Academic Year

Introduction to Epidemiology (PHM 2612)

Fall 2025

Lead Instructor – 100% effort; 47 students

Course development: *Substantial development and improvement of class activities, discussion and practice. Materials were also updated to better meet the needs of the large class that enrolled this term, including improvement in facility group work activities for both in-person and virtually attendees to class. Developed games for exam preparations to promote student learning and enjoyment during exam preparation.*

Field Research methods in Epidemiology (PH 2615)

Fall 2025

Lead Instructor – 100% effort; 21 students

Course development: *Reviewed and revised all homework assignments and corresponding student rubrics to align with best teaching practices and improvements to the curriculum based on areas of weak understanding in prior semesters.*

Introduction to Epidemiology – Online (PHM 2612)

Spring 2026

Lead Instructor – 100% effort; 38 students

Course development: *Worked on the live Q & A session materials, a weekly live session where the class can meet with me virtually via Teams. Typical format includes a 20-minute lecture recap emphasizing key and 'trickiest' points, followed by guided practice problems we solve together or homework problem walk-throughs. For difficult questions, I prepared slides ahead of time to provide a visual walk through using different numbers, so that students can practice with me and their peers before attempting the homework problems on their own or to clarify their understanding. I also began curating the videos with timestamps so that students can know when each topic is discussed in the review and when each homework problem or concept is reviewed so they can skip directly to what they need to review since the sessions generally last for ~1.5 hours.*

Epidemiology Capstone - Online (PH 2996)**Spring 2026***Lead Instructor – 100% effort; 10 students*

Course development: *Enhanced student experience and engagement with the course and each other by developing detailed peer-review rubrics and structured checklists that improved the quality, consistency, and depth of student feedback on draft projects. Expanded course communications and instructional guidance to better clarify assignment objectives, expectations, and development processes, while strengthening students' ability to engage in meaningful peer review, a central component of the course's collaborative learning model.*

Introduction to Epidemiology – Online (PHM 2612)**Summer 2026***Co-Instructor – 50% effort; 24 students***Field Epidemiology – Online (PH 2615)****Summer 2026***Lead Instructor – 100% effort; 15 students*

Course development: *Updated all course materials including lectures, homework assignments, Check Your Learning Quizzes, and Field Day Activities to be ADA compliant. As part of this process, the Canvas site was re-designed from scratch to comply with new design tools and materials, improve student interface with materials to boost their learning experience and to ensure the course fully met all required ADA standards. Fully asynchronous Field Day materials developed the previous semester were further improved and student again responded positively to the assignments' ability to provide to re-iterate what they learned, reflect on the benefits and weaknesses of virtual data collection, consider the utility of teamwork in the virtual space, and provide their feedback on the experience. All students (n=15), again, reported a positive experience with this summary course activity.*

2024-2025 Academic Year**Epidemiology I (PHM 2612)****Fall 2024***Lead Instructor – 100% effort; 33 students*

Course development: *Re-organized or redesigned all lectures and course activities to 'flip the classroom' to promote (1) student engagement, (2) attendance, and (3) practical skills development and retention. Each module consists of a newly updated audiovisual presentation on a key aspect of epidemiology to be completed asynchronously and is paired with a newly created or updated in class activity to be done synchronously. Class activities vary widely to promote student interest and avoid stale classroom environments and include statistical software labs, use of publicly available data to answer a research question, practice problem walkthroughs, data presentation, and Epi article journal club activities.*

Epidemiology II (PH 2615)**Fall 2024***Lead Instructor – 100% effort; 21 students*

Course development: *Updated student assignment checklists created in Fall 2022 to rubrics for 3 purposes: (1) to promote transparency in grading and assignment scoring, (2) to provide students a single document at the end of the term with their entire project's feedback, and (3) to provide a framework that will allow for students to more easily peer review each other's work as well as more insightfully appraise their own. As part of this effort, the course will now address previous student feedback to allow for more inter-group interaction.*

Epidemiology I Online (PHM 2612)**Spring 2025***Lead Instructor – 100% effort; 43 students*

Course development: Educational assessment of previous innovation award was assessed this semester using an anonymous standardized survey available to all students in the course. 40 of the 43 students (93%) responded to the survey and results suggested all innovations were accepted, in particular the interactive discussion board assignment called “EpiConnections” designed to allow the student to apply their own personal/academic interests to course concepts and the pop-up practice questions created and embedded in all video lectures utilizing H5P software to promote learning engagement with the video lectures. Results were shared with the university-wide Teaching Innovation Award Sharing Session in June 2025.

Epidemiology Capstone Course (PH 2996)**Spring 2025***Lead Instructor – 33% effort; 37 students*

Course development: Created weekly announcements to provide weekly structure and guidance to students as they develop their own projects in the asynchronous environment. These can be shared, programed, and utilized across semesters for other faculty that teach this course.

Epidemiology I Online (PHM 2612)**Summer 2025***Co-Instructor – 50% effort; 28 students***Epidemiology II Online (PH 2615)****Summer 2025***Lead Instructor – 100% effort; 15 students*

Course development: Adapted the Environmental Audit Field Experience used in my Hybrid course to the fully online/asynchronous experience (previously adapted from a fully in-person course structure). This included additional training on virtual data collection best practice as well as instructions for collecting primary data collection in groups using virtual tools like Google Maps and Microsoft Teams. To ensure successful implementation of a fully virtual experience I created a summary re-cap assignment that allowed students to re-iterate what they learned, reflect on the benefits and weaknesses of virtual data collection, consider the utility of teamwork in the virtual space, and provide their feedback on the experience. All students (n=15) reported a positive experience with many encouraging the use of the experience for future asynchronous students.

2023-2024 Academic Year**Epidemiology I (PHM 2612)****Fall 2023***Lead Instructor – 100% effort; 33 students*

Course development: Developed a hybrid version of the course. To facilitate the partially asynchronous/partial synchronous nature of the course, I developed Check Your Learning Assignments for each week of the course to help students practice material covered in the asynchronous portion of the course and to ensure they were prepared to build on this material in the live sessions each week.

Epidemiology II (PH 2615)**Fall 2023***Lead Instructor – 100% effort; 20 students*

Course development: Was the member of a 3-member Teaching Innovation Award designed to improve student engagement in Epidemiology II online students. In partnership with the Office of Instructional Design, the team (1) made all lectures ADA accessible, (2) reorganized lecture slides to allow for the addition of closed captions, and (3) created and embedded practice questions in all video lectures utilizing H5P software to promote learning & engagement with the video lectures.

Epidemiology I Online (PHWM 2612)**Spring 2024***Lead Instructor – 100% effort; 33 students*

Course development: Was the lead faculty (with 2 peers) on a Teaching Innovation Award designed to improve student engagement in Epidemiology I online. In partnership with the Office of Instruction Design, we (1) made all lectures ADA accessible, (2) reorganized slides to allow for closed captions, (3) created an interactive discussion board assignment called “EpiConnections” designed to allow the student to apply their own personal/academic interests to course concepts, (4) created and embedded pop up practice questions in all video lectures utilizing H5P software to promote learning engagement with the video lectures. In addition, (5) I created a digital version of the self-guided introduction to statistical software Stata lab (developed in Fall 2022) used to help students (a) engage with statistical software to answer an epidemiological research question and (b) practice assessing for confounding and effect modification and presenting analysis results of a real-world data set. This includes a video introduction, a video walkthrough, and a practice assessment.

Epidemiology II (PH 2615)**Spring 2024***Lead Instructor – 100% effort; 21 students*

Course development: Adapted the Environmental Audit Field Experience to the Hybrid Epi 2 course structure. The purpose of the Field Study is to allow students to apply didactic coursework to a real-world data collection setting. Additionally, I developed an Environmental Audit Training video to simulate real-world onboarding to a field study. Also, to create learner equity and to facilitate the Environmental Audit Field Experience no matter a student’s physical location or abilities, I created a Virtual Data Collection version of the Environmental Audit Field Experience using Google Maps. Two students who would not have otherwise been able to participate were able to pilot this project.

Epidemiology I Online (PHWM 2612)**Summer 2024***Co-Instructor – 50% effort; 24 students***Epidemiology II Online (PHW 2615)****Summer 2024***Co-Instructor – 50% effort; 23 students***2022-2023 Academic Year****Epidemiology I (PHM 2612)****Fall 2022***Co-Instructor – 50% effort; 29 students*

Course development: (1) Developed new course lecture materials emphasizing student engagement using practical and diverse examples and embedded practice sets for half the course lectures. (2) Adapted and expanded a statistical software lab designed (adapted from Bing Yu, 2018) to introduce students to answering epidemiological questions using statistical software. The lab was created to be self-guided and allow students to work in groups to develop and practice the associated skills.

Epidemiology II (PH 2615)**Fall 2022***Lead Instructor – 100% effort; 20 students*

Course development: (1) Designed and re-organized the course around a drafting process to better reflect the real-world process of creating a Manual of Operating Procedure for a Field Study. Each week students draft 1 or more course assignments to be reviewed by their peer and/or the teaching team. In class students must then defend the choices they’ve made in the conduct of their proposed study and update the assignments to reflect the discussion and best practices before submitting

the work for a grade. (2) Updated and improved clarity of existing course assignments (n=18) based on student feedback from the previous semester. Developed highly detailed checklists for each assignment (n=18) that students could use to evaluate their specific group project (MOP) and to improve learner outcomes. (3) Created practice assignments for use in class to help students practice Field Epidemiology core curriculum before applying to their own individual projects.

Epidemiology I (PHM 2612)

Spring 2023

Co-Instructor – 50% effort; 27 students

Course development: *(1) Created a summary assignment for the course modeled after the Epidemiology Preliminary Exam, whereby students read a paper before class and then work in groups to answer questions that cover all key course curriculum from across the term. (2) Completed the creation of the second half of the course lectures not completed in Fall 2022.*

Epidemiology II (PH 2615)

Spring 2023

Lead Instructor – 100% effort; 21 students

Course development: *(1) Created ‘Check Your Learning’ Assignments for each week of the course to help students practice material covered in the asynchronous portion of the course and to ensure they were prepared to build on this material in the live sessions each week. (2) Further developed the in-class practice activities initiated in Fall 2022 to help improve peer-to-peer interaction in class and improved learning outcomes.*

Epidemiology I Online (PHWM 2612)

Summer 2023

Co-Instructor – 50% effort; 22 students

Course development: *Further adapted all lectures developed during the Fall 2022 and Spring 2023 semesters in several ways: (1) Re-organized the lectures to incorporate the history of the methods in question to help students appreciate the context in which key epidemiological concepts/practices were developed to make concepts more approachable. (2) As part of this process, I adopted a more narrative style for the lectures and adapted the practice problems within lectures to be consistent with the historical topic discussed. (3) Additionally, all lectures were converted into audiovisual presentations to fit the online modality.*

Epidemiology II Online (PHW 2615)

Summer 2023

Co-Instructor – 50% effort; 23 students

Course development: *Adapted the Manual of Operating Procedures Draft Process (created in Fall 2022) to both the shortened summer semester and to fully asynchronous course delivery.*

2021-2022 Academic Year

Epidemiology III (PH 2715)

Spring 2022

Co-Instructor – 50% effort; 39 students

Course development: *Adapted and expanded a statistical software lab (adapted from D. Michael Hallman, PhD, 2025) designed to allow students to answer epidemiological research questions using software, specifically related to confounding, effect modification, stratified analysis, logistic regression using both categorical, linear, and original predictor variables. The lab was created to be self-guided and allow students to work in groups to develop and practice the associated skills. Created 2 associated homework assignments.*

Epidemiology II Online (PHW 2615)

Summer 2022

Co-Instructor – 50% effort; 40 students

Guest Lecturer – UTHealth Houston School of Public Health

Introduction to Epidemiology (PH 2612)

Course Instructor: Shreela Sharma, PhD

Topic: From Association to Causation

Fall 2025

Tropical Infectious Diseases (PH 2800)

Course Instructor: Eric L. Brown, PhD

Topic: Filarial parasites of human and veterinary concern

Fall 2022

Tropical Infectious Diseases Online (PH 2800)

Course Instructor: Eric L. Brown, PhD

Topic: Filarial parasites of human and veterinary concern

Fall 2022

Graduate Teaching Assistant – UTHealth Houston School of Public Health

Tropical Infectious Diseases (PH 2800)

Course Instructor: Eric L. Brown, PhD

Fall 2014 – 2021

Tropical Infectious Diseases Online (PH 2800)

Course Instructor: Eric L. Brown, PhD

Fall 2014 – 2021

Immunology (PH 2800)

Course Instructor: Eric L. Brown, PhD & Cynthia Chappell, PhD

Spring 2016, 2018, 2020

Immunology Online (PH 2800)

Course Instructor: Eric L. Brown, PhD

Spring 2018, 2020

Medical Microbiology (PH 2800)

Course Instructor: Eric L. Brown, PhD & Charles Darkoh, PhD

Odd Spring 2015-2021

Medical Microbiology Online (PH 2800)

Course Instructor: Eric L. Brown, PhD & Charles Darkoh, PhD

Spring 2019, 2021

Epidemiology I (PH 2612)

Course Instructor: Bing Yu, PhD

Fall 2018, 2019

Secondary Teacher – Fort Bend Independent School District

Biology I

Facilitated State of Texas Biology curriculum for 165 students and prepared students for both End of Course Statewide examinations as well as Fall and Spring semester district-level assessments.

2011 – 2012

Independent Private Tutor

Private tutor

Topics: English literature, English language, French, Chemistry, Biology, Geometry, Algebra, Algebra II, AP and college essay writing, SAT prep., and study skills

2008 – 2011

Undergraduate Teaching Assistant – Rice University

Human Physiology

Course Instructor: Brian Gibson, PhD

Spring 2005

COMMITTEES AND ACTIVITIES:

UTHealth Houston School of Public Health

2026 - Present	Member, Admissions Committee, Department of Epidemiology
2025 - Present	Reviewer, School-wide Course Review for the Department of Epidemiology
2025 - Present	Chair, Doctoral Student Experience Sub-Committee on Advising and Mentoring
2024 - Present	Member, CEPH Accreditation Committee
2024 - 2025	Lead, Non-Tenure Track Faculty Advisory Group
2023 - 2025	Member, Faculty Council
2022 - Present	Member, Epi NTI Teaching Excellence Team
2022 - Present	Member, Epidemiology Preliminary Exam Committee
2022 - Present	Member, Epidemiology Curriculum Committee
2022 - Present	Member, Teaching & Communication Certificate Development Committee
2022	External Reviewer, Epidemiology Preliminary Exam Committee

SERVICE TO THE FIELD:

2025	Handling Editor <i>Frontiers: Public Health Education and Promotion</i>
2023 - Present	Review Editor <i>Frontiers: Public Health Education and Promotion</i>

Previously served as Peer reviewer for:

Journal of Clinical Investigation
Journal of Infection and Public Health

RESEARCH INTERESTS:

Methods in epidemiology, pedagogy, andragogy, infectious disease epidemiology, immunology, infectious disease transmission, parasitology, microbiomics.

PUBLICATIONS:

1. Orofacial spread of migraine pain: as systematic review of maxillary, mandibular, and temporomandibular joint distributions of pain in migraine. G. Bhatia, **H. T. Essigmann**, M. J. Burish. *Headache*. (***under review***)
2. A. Nelson, M. Downey, M. Murray, B. Weber, E. Aguirre, R. S. McCrea, J. Mims, M. Vigilant, C. Standlee, K. O. Murray, A. Kneubehl, E. L. Brown, **H. T. Essigmann**, and S. M. Gunter. Emerging

tick-borne disease risk in an urban center of Harris County, Texas. *Vector Borne Zoonotic Dis.* **2025**. DOI: 10.1177/15303667251386209. PMID: 41115719.

3. M. Jibowu, M. Vigilant, A. Costa-da-Silva, A. Nelson, **H.T. Essigmann**, E.L. Brown, and S.M. Gunter. Spatial and seasonal dynamics of mosquito species in Harris County, Texas, highlight risk of arbovirus introduction and transmission. *Sci Reports.* **2025**. 25;15(1):10330. DOI:10.1038/s41598-025-92175-6. PMID: 40133319
4. M. Jibowu, M. S. Nolan, R. Ramphul, **H. T. Essigmann**, A. O. Oluyomi, E. L. Brown, M. Vigilant, and S. M. Gunter. Spatial dynamics of *Culex quinquefasciatus* abundance: geostatistical insights from Harris County, Texas. *International Journal of Health Geographics.* **2024**. 23. 10.1186/s12942-024-00385-4.
5. E.L. Brown, **H.T. Essigmann**, K.L. Hoffman, J. Petrosino, G. Jun, S.A. Brown, D.A. Aguilar, and C.L. Hanis. *Curr. Microbiol.* C-reactive protein levels correlate with measures of dysglycemia and gut microbiome profiles. **2024**. 81:45 <https://doi.org/10.1007/s00284-023-03560-1>. PMID: 38127093.
6. E.L. Brown, **H.T. Essigmann**, K.L. Hoffman, A. Alexander, M. Newmark, Z.D. Jiang, J. Suescun, M.C. Schiess, C.L. Hanis, and H.L. DuPont. IgA-Biome profiles correlate with clinical Parkinson's disease subtypes. **2023**. *J. Parkinsons. Dis.* 13:501-213. PMID: 37212075
7. H.L. DuPont, J. Suescun, Z.D. Jiang, E.L. Brown, **H.T. Essigmann**, A.S. Alexander, A.W. DuPont, T. Iqbal, N.S. Utay, M. Newmark, and M.C. Schiess. Fecal microbiota transplantation in Parkinson's Disease - A randomized repeat-dose, placebo-controlled clinical pilot study. **2023**. *Front. Neurol.* <https://doi.org/10.3389/fneur.2023.1104759>. PMID: 36937520
8. **H.T. Essigmann**, C.L. Hanis, S.M. DeSantis, W.B. Perkison, D.A. Aguilar, G. Jun, D.A. Robinson, and E.L. Brown. Worsening glycemia increases the odds of intermittent but not persistent *Staphylococcus aureus* nasal carriage in two cohorts of Mexican American Adults. **2022**. 10(3). e0000922. Doi: 10.1128/spectrum.00009-22 *Microbiol. Spectr.* PMID: 35583495.
9. **H.T. Essigmann**, D.A. Aguilar, W.B. Perkison, K.B. Bay, M.R. Deaton, S.A. Brown, C.L. Hanis, and E.L. Brown. Epidemiology of antibiotic use and drivers of cross-border procurement in a Mexican American border community. *Front. Pub. Health.* **2022**. <https://doi.org/10.3389/fpubh.2022.832266>. PMID: 35356027.
10. **H.T. Essigmann**, K.L. Hoffman, J.F. Petrosino, G. Jun, D. Aguilar, C.L. Hanis, H.L. DuPont, and E.L. Brown. The impact of the Th17:Treg axis on the IgA-Biome across the glycemic spectrum. *PLoS One.* **2021**. 16(10):e0258812. PMID: 34669745.
11. E.L. Brown and **H.T. Essigmann**. Original antigenic sin: the downside of immunological memory and implications for COVID-19. *mSphere.* **2021**. 6(2):00056-21. DOI: 10.1128/mSphere.00056-21. PMID: 33692194.
12. E.L. Brown, **H.T. Essigmann**, K.L. Hoffman, N.W. Palm, S.M. Gunter, J.F. Petrosino, G. Jun, D. Aguilar, W.B. Perkison, C.L. Hanis, and H.L. DuPont. The impact of diabetes on the gut and salivary IgA Microbiomes. **2020**. *Infect. Immun.* 88(12). E00301-20. PMID: 32900816.
13. E. Israelsson, D. Chaussabel, R.S. Fischer, H.C. Moore, D.A. Robinson, J.W. Dunkle, **H.T. Essigmann**, S. Record, and E.L. Brown. Characterization of peripheral blood mononuclear cells gene

expression profiles of pediatric *Staphylococcus aureus* persistent and non-carriers using a targeted assay. *Microb. Infect.* **2020**. S1286-4579(20)30144-1. PMID: 32758644.

14. S.M. Gunter, K.M. Jones, C.A. Seid, **H.T. Essigmann**, B. Zhan, U. Strych, M.E. Bottazzi, P.J. Hotez, and E.L. Brown. Mutations to cysteine residues in the *Trypanosoma cruzi* B-cell superantigen Tc24 diminish susceptibility to IgM-mediated hydrolysis. *J. Parasitol.* **2017**. PMID: 28581897.
15. C.L. Hanis, K. Garrett, **H.T. Essigmann**, D.A. Robinson, S.M. Gunter, A.G. Nyitray, and E.L. Brown. Household aggregation of *Staphylococcus aureus* by clonal complex and methicillin resistance profiles in Starr County, Texas. *Eur. J. Clin. Microbiol. Infect. Dis.* 36: 1787-1793. **2017**. PMID: 28474178.
16. **H.T. Essigmann**, C. Darkoh, Erin E. McHugh, and E.L. Brown. The *Clostridium difficile* quorum-sensing molecule alters the *Staphylococcus aureus* toxin expression profile. *Int. J. Antimicrobiol. Ag.* **2017**. <http://dx.doi.org/10.1016/j.ijantimicag.2017.01.001>. PMID: 28111286.
17. M. Reid, R. Fischer, N. Mannathoko, C. Muthoga, E. McHugh, **H.T. Essigmann**, E.L. Brown and A. Steenhoff. Prevalence of *Staphylococcus aureus* nasal carriage in HIV-infected and HIV-uninfected children in Botswana. *Am. J. Trop. Med. Hyg.* **2017**. PMID: 28167588.
18. S.M. Gunter, K.M. Jones, B. Zhan., **H.T. Essigmann**, K.O. Murray, M.N. Garcia, R. Gorchakov, M.E. Botazi, P.J. Hotez, and E.L. Brown. Identification and characterization of the *Trypanosoma cruzi* B-cell superantigen Tc24. *Am. J. Trop. Med. Hyg.* **2016**.94:114-121 DOI: 10.4269/ajtmh.15-0438.
19. E.L. Brown, P.E. Below, R.S. Fischer, **H.T. Essigmann**, H. Hu, C. Huff, A.D. Robinson, L.E. Petty, D. Aguilar, G.I. Bell, and C.L. Hanis. Genome-wide association study of *Staphylococcus aureus* nasal carriage in a community-based sample of Mexican-Americans in Starr County, Texas. *PLoS1*. **2015**. DOI: 10.1371/journal.pone.0142130.

INVITED PRESENTATIONS:

1. UTHealth Houston School of Nursing, **Course N7530: Analysis of the Context of Healthcare.** Discussed an introduction to Epidemiology to PhD Nursing students. Invited by Dr. Annalyn DeMello. 2 hours, September 2026.
2. **UTHealth Houston School of Public Health Teaching Innovation Award Sharing Session, 2026.** Presented talks on the experience and student outcomes of the 2024-2025 Teaching Innovations Award: *Learning by Doing by Doing! Expanding, Harmonizing, & Sharing Effective Field Study Experiences for Field Epidemiology*
3. UTHealth Houston School of Nursing, **Course N7530: Analysis of the Context of Healthcare.** Discussed an introduction to Epidemiology to PhD Nursing students. Invited by Dr. Annalyn DeMello. 2 hours, September 2025.
4. **UTHealth Houston School of Public Health Teaching Innovation Award Sharing Session, 2025.** Presented two 30-minute talks on the experience and student outcomes of 2 2023-2024 Teaching Innovations Awards: *Building Strong Foundational Knowledge Through Student Engagement in Asynchronous Epidemiology I & Encouraging Student Engagement in Asynchronous Epidemiology II*

ABSTRACTS AND PRESENTATIONS:

1. **H.T. Essigmann**, E.V. Feofanova, A.C. Choh. *Keeping Your Balance when Shifting Your Course from Synchronous Face-to-face to Asynchronous Online!* **Poster Presentation** presented at the 2026 Shine Academy Innovations in Health Sciences Education Conference. **2026**
2. E. V. Feofanova, A.C. Choh, **H.T. Essigmann**, N. Eugene, E. Breckenridge, N. Hare-Everline. Challenges to Student Engagement in Asynchronous Online Classrooms. **1 hour Discussion session** presented at the 2025 Shine Academy Innovations in Health Sciences Education Conference. **2025**
3. A. Sedory, E.V. Feofanova, **H.T. Essigmann**, N. Hare-Everline. Faculty Fusion: Supercharging Instruction through Interdepartmental Communication and Collaboration Among Instructional Faculty. **1 hour Discussion session** presented at the 2025 Shine Academy Innovations in Health Sciences Education Conference. **2025**
4. Schick, V., Quan Chen, FT., Ndambakuwa, Y., Weber, E., Mangrem, S., Brown, C., Brown, E., **Essigmann, H. T.**, Roberts, L., Troisi, C. GRASSROOTS HEALTH: Bringing Hepatitis B and C Education, Testing, Vaccination and Navigation to the Door of Individuals Living in Permanent Supportive Housing. Oral Presentation at the American Public Health Association Annual Meeting. Boston, MA. 2022.
5. H. Chen, H. Hu, L. E. Petty, D. A. Robinson, **H. T. Essigmann**, R. S. Fischer, C. L. Hanis, C. Huff, E. L. Brown, J. E. Below. Genome-wide association study of *Staphylococcus aureus* infection and clonal complexes in related samples from Starr County, Texas. American Society of Human Genetics. Vancouver, Canada, 18-22 October, **2016**.
6. M. Reid, R.S. Fischer, D.A. Robinson, X. Lou, N. Mannathoko, C. Muthoga, **H.T. Essigmann**, E.L. Brown, A. Steenhoff. Molecular characterization of *Staphylococcus aureus* colonizing HIV-infected adults in Botswana. 21st International AIDS Conference. Durban, South Africa, 18-22 July, **2016**.
7. S.K. Murphy, **H. T. Essigmann**, K.M. Jones, K.O. Murray, P.J. Hotez, and E.L. Brown. Identification and characterization of the *Trypanosoma cruzi* B-cell super antigen Tc24. American Association of Immunologists Annual Meeting. New Orleans, LA. May 8-12, **2015**.
8. S.K. Murphy, **H. T. Essigmann**, K.M. Jones, K.O. Murray, P.J. Hotez, and E.L. Brown. Identification and characterization of the *Trypanosoma cruzi* B-cell super antigen Tc24. Tropical Infectious Diseases Gordon Conference. Galveston, TX. March 8-12, **2015**.
9. E.L. Brown, S.K. Murphy, and **H. T. Essigmann**. 'Identification and characterization of the *Trypanosoma cruzi* Tc24 B-cell superantigen.' Forty-first Annual Fancy Gap Immunoparasitology Workshop, Wake Forest, Winston-Salem, NC, October 9-12, **2014**.

ACADEMIC ADVISING:

Academic Advisor – UTHHealth Houston School of Public Health, Department of Epidemiology

PhD Program

Sylvia Phan	PhD	Houston Campus	2026- present
Michelle Pennington	PhD	Houston Campus	2025- present
Sia Dauda	PhD	Houston Campus	2025- present
Oluwadotun Balogun	PhD	Houston Campus	2025- present

Rhoda Ojo	PhD	Dallas Campus	2024- present
MPH Program			
Adriana Cattermole	MPH	Online	2026-present
Nandita Phadke	MPH	Houston Campus	2026-present
Matthew Freeman	MPH	Online	2026- present
Wei-Hsien Hsaio	MPH	Houston Campus	2026- present
Veronica Ugueubge	MPH	Houston Campus	2026- present
Rachel Eikenrieter	MPH	Online	2025- present
Syeda Akter	MPH	Dallas Campus	2025- present
Sharmin Mitha*	MPH	Houston Campus	2025- 2026
Tori Nichololson	MPH	Online	2025- present
Fahd Abdelall	MPH	Houston Campus	2025- present
Dasom Kim*	MPH	Houston Campus	2025- 2026
Katherine Wang*	MPH	Houston Campus	2024- 2025
Munachimso Nwankwo*	MPH	Houston Campus	2024- 2026
Julia Kirk*	MPH	Houston Campus	2024- 2025
Shirindokht Shirazi*	MPH	Houston Campus	2024- 2025
Pakesh Raza*	MPH	Houston Campus	2024- 2026
Ermelinda Garduno*	MPH	Dallas Campus	2024- 2025
Zarin Akhter*	MPH	Houston Campus	2024
Roshitha X. Ramisetty*	MPH	Houston Campus	2023- 2024
Hetal Talreja*	MPH	Houston Campus	2023- 2025
Zainab Naeem	MPH	Houston Campus	2023- present
Deeksha Sharma*	MPH	Houston Campus	2023- 2025
Gunjan Bhatia*	MPH	Houston Campus	2023- 2025
Aditya Mamlatdarna*	MPH	Houston Campus	2023- 2025
Alejandro Velez*	MPH	Online	2023- 2025
Maria Rivera	MPH	Online	2023- present
Lauren Koepfel*	MPH	Houston Campus	2022- 2024
Alisa Nelson*	MPH	Houston Campus	2022- 2024
Ruchi Nikhil Pavaskar*	MPH	Houston Campus	2022- 2024
Srusti Ganesh Bhalerao*	MPH	Houston Campus	2022- 2024
Wesley Baisley*	MPH	Online	2022- 2024
Ashley Nicole Boubel	MPH	Online	2022- 2025
Carolina Granada*	MPH	Houston Campus	2022- 2024
Zarna Lalwani*	MPH	Houston Campus	2022- 2024
Madhura Shah*	MPH	Houston Campus	2023
Carla Godoy*	MPH	Houston Campus	2022-2023

***Graduated**

Practicum Supervisor – UTHealth Houston School of Public Health, Department of Epidemiology

Veronica Ugueubge	MPH	Houston Campus	Fall 2026
Syeda Akter	MPH	Dallas Campus	Fall 2026
Mathew Freeman	MPH	Houston Campus	Summer 2026

Jessie Hui	MPH	Houston Campus	Summer 2026
Sharmin Mitha	MPH	Houston Campus	Fall 2025
Katherine Wang	MPH	Houston Campus	Fall 2025
Gunjan Bhatia	MPH	Houston Campus	Summer 2025
Dason Kim	MPH	Houston Campus	Summer 2025
Alejandro Velez	MPH	El Paso Campus	Spring 2025
Pakesh Raza	MPH	Houston Campus	Spring 2025
Dhrishit Mangrolia	MPH	Houston Campus	Spring 2025
Kritika Suri	MPH	Houston Campus	Fall 2024
Shirindokht Shirazi	MPH	Houston Campus	Fall 2024
Hetal Talreja	MPH	Houston Campus	Fall 2024
Ermelinda Garduno*	MPH	Dallas Campus	Summer 2024
Alisa Nelson	MPH	Houston Campus	Summer 2024
Lauren Koepfel	MPH	Houston Campus	Summer 2024
Bansari Ranjani	MPH	Houston Campus	Summer 2024
Aditya Mamlatdarna	MPH	Houston Campus	Summer 2024
Carolina Granada	MPH	Houston Campus	Spring 2024
Roshitha X. Ramisetty	MPH	Houston Campus	Spring 2024
Wesley Baisley	MPH	Online	Fall 2023
Breana Alsworth	MPH	Austin Campus	Fall 2023
Ruchi Nikhil Pavaskar	MPH	Houston Campus	Summer 2023
Zarna Lalwani	MPH	Houston Campus	Summer 2023
Srusti Bhalerao	MPH	Houston Campus	Summer 2023
Lindsey Burcham	MPH	Houston Campus	Summer 2023
Katie Katsounas	MPH	Houston Campus	Spring 2023
Carla Godoy	MPH	Houston Campus	Spring 2023
Zehra Jaffari	MPH	Houston Campus	Fall 2022
Gerardo Dominguez-Diaz	MPH	Austin Campus	Fall 2022
Krithika Ganesh	MPH	Houston Campus	Summer 2022
Jenna Guzman	MPH	Austin Campus	Summer 2022

*beginning mid semester

MS/MPH Thesis Committee Member or Independent Learning Experience (ILE) Advisor – UTHealth Houston School of Public Health

Nandita Phadke	MPH/ILE	Houston Campus	Fall 2026
<i>Manual of Procedures (MOP) for implementing an AI-assisted evaluation of Wrong Tooth Extraction (WTE) events using electronic dental records</i>			
Dasom Kim	MPH/ILE	Houston Campus	Spring 2026
<i>Association Between Patient Demographics and Assessment of the ‘What Matters’ Document in Hospitalized Older Adults Receiving Geriatric Consult Services</i>			
Hetal Talreja	MPH/ILE	Houston Campus	Fall 2025
<i>Stannous Fluoride (SnF2) for Gingivitis Control: A Review of Clinical Efficacy and Biological Mechanisms</i>			
Gunjan Bhatia	MPH/ILE	Houston Campus	Fall 2025
<i>Orofacial spread of Migraine pain: maxillary, mandibular, and temporomandibular joint distributions of pain in patients with migraine: a systematic review</i>			
Shoaib Sarfraz	MS/Thesis	Houston Campus	Su-Fa 2025
<i>Assessing the association of preterm birth with various risk factors</i>			

Awanee Gaspar	MPH/Thesis	Houston Campus	Sp-Su 2025
<i>Differences in breast cancer survival: association between screening uptake, healthcare access, and mortality in Singaporean women (2012-2023)</i>			
Vyoma Soni	MPH/ILE	Houston Campus	Spring 2025
<i>Exploring the Association Between Central Line-Associated Bloodstream Infections Reported by Texas Acute Care Hospitals in 2023 and Statewide Population Demographics</i>			
Deeksha Sharma	MPH/ILE	Houston Campus	Spring 2025
<i>Spatial Distribution of Federally Qualified Health Centers and Health Care for Homeless Clinics in Relation to Homeless Population</i>			
Julia Kirk	MPH/ILE	Houston Campus	Spring 2025
<i>Recommendations for Screening and Treatment of Congenital Syphilis in Partnership with the Texas Collaborative for Healthy Mothers and Babies</i>			
Shirindokht Shirazi	MPH/ILE	Houston Campus	Spring 2025
<i>The Prevalence and Etiology of Syndromic and Isolated Facial Asymmetry or Hemifacial Microsomia (HFM)</i>			
Zarna Lalwani	MPH/ILE	Houston Campus	Fall 2024
<i>Transforming Public Health Data into Actionable Insights with Geographic Information Systems (GIS)</i>			
Lauren Koepfel	MPH/ILE	Houston Campus	Fall 2024
<i>A Critical Review of the CDC's Vessel Sanitation Program's Cruise Ship Guidelines</i>			
Ruchi Nikhil Pavaskar	MPH/ILE	Houston Campus	Summer 2024
<i>Assessing the magnitude and impact of food and nutrition insecurity in cancer patients</i>			
Zarin Akter	MPH/ILE	Houston Campus	Spring 2024
<i>Mental Healthcare Service Usage following Disaster in Mexico: ABC Daycare Fire</i>			
Alisa Nelson	MPH/Thesis	Houston Campus	2023 - 2024
<i>Thesis: Tick-Borne Pathogen Surveillance in Harris County: Spotted Fever Group Rickettsia</i>			
Zehra Jaffari	MPH/ILE	Houston Campus	Spring 2023
<i>Applying evidence-based management practices to make recommendations to an organization facing a healthcare problem: Candida auris</i>			

Doctoral Dissertation Committee Member – UTHealth Houston School of Public Health

Rhoda Ojo	PhD Epidemiology	2026- present
Chardria Trotter	PhD MPACH	2025- present
<i>Visit content and patient characteristics in telehealth vs in-person early integrated palliative care: a secondary analysis of the REACH PC trial</i>		
Michelle Pennington	PhD Epidemiology	2025- present
Atheer Jaffar	PhD Epidemiology	2025- present
Angela Zieba	PhD Epidemiology	2024- present
<i>Temporal ecology and effects of mosquito populations following major rain events</i>		
Cory Pfeifer	PhD MPACH	2023- present
<i>Chest CT Utilization Associated with the diagnosis of RSV and COVID-19 in US Emergency Departments, 2019-2021</i>		
*Morgan Jibowu	PhD Epidemiology	2023- 2024
<i>Population Dynamics of Medical Important Mosquitos in Harris County, Texas</i>		
*Shelby Rose Simar	PhD Epidemiology	2022- 2024
<i>The Bugs they are A-Changin': The Persistence and Resistance of Enterococci</i>		
*Taylor Castillo	PhD MPACH	2022- 2025
<i>Adolescent Behavioral Health: Evaluating the Trends in Anxiety & Depression in the Primary Care Setting from 2018-2022</i>		

CONFERENCES/SYMPOSIUMS/TRAININGS:

- Feb 2026 **Shine Academy Innovations in Health Sciences Education Conference 2026** (12 hours)
2-day conference bring University of Texas system schools together to improve health sciences education. The conference focused on innovation and excellence in health professions education, with sessions emphasizing professional identity formation, active learning, curriculum design, and evidence-based teaching practices. Highlights included small-group discussions on cultivating the healer identity, gamification in medical education, and developing curricula for adult learners; workshops on deep learning principles and practical AI prompting for curriculum development; plenary presentations showcasing educational innovations; and opportunities for networking and scholarly exchange through a poster session, reception, and award presentations
- Sep 2025 **UTHealth School of Dentistry Leadership Series: Compassionate Leadership: Creating Environments Where Others Feel Safe and Valued** (1 hour)
- June 2025 **UTHealth Advances in Teaching and Learning Day** (8 hours)
Keynote speaker: Dr. Todd Zakrajšek's. Gained a deeper understanding of how cognitive science informs effective teaching practices in health science education. Sessions highlighted key elements of learning (memory, attention, and motivation) to challenge common assumptions about how students learn. Explored evidence-based strategies to foster deeper, more durable learning, how to increase learner participation by addressing psychological and environmental barriers, and practical tools to create inclusive and engaging learning environments via actionable techniques.
- June 2025 **Microsoft 365 Copilot Training for PowerPoint and OneNote** (1 hour)
A 1-hour training session on the use of Microsoft's AI software, Microsoft Copilot to create compelling and engaging learning and communication tools in PowerPoint.
- June 2025 **Teaching Innovation Award Faculty Experience Sharing Session** (2 hours)
2-hour session in which, with my collaborators, delivered a 50-minute presentation that shared our experiences, suggestions, and work on our 2023-2024 Teaching Innovation Awards for Introduction to Epidemiology and Field Methods in Epidemiology with UTHealth Houston School of Public Health faculty
- May 2025 **Using VoiceThread in Canvas Workshop** (1 hour)
A 1-hour training session on the use of VoiceThread software to create graded assignments and sharing spaces for classes in the online space to improve student engagement with the teaching team, their peers, and their material under discussion
- Feb 2025 **Shine Academy Innovations in Health Sciences Education Conference 2025** (12 hours)
2-day conference bring University of Texas system schools together to improve health sciences education. Across the 2 days, I attended sessions on writing objectives, developing an integrative mentoring program, the use of AI in Health Science Education, and lead a 1-

hour discussion on 'Teaching Effectively in a Mixed Modality World' and helped develop 2 others (see Abstracts and Presentations)

Fall 2024	Rice University Center for Teaching Excellence Reading Group (3 hours) <i>Read and discussed the book Improving Learning and Mental Health in the College Classroom by Robert Eaton, Steven V. Hunsaker, and Bonnie Moon with Rice University faculty and doctoral students.</i>
Sept. 2024	Teaching and Learning with AI Webinar (1 hour) <i>Inside Higher Ed</i>
Fall 2023	Rice University Center for Teaching Excellence Reading Group (3 hours) <i>Read and discussed Small Teaching by James Lang with Rice University faculty and doctoral students</i>
July 2023	Advances in Teaching and Learning Day (8 hours)
May 2023	American Educational Research Association Annual Meeting (20 hours)
Mar. 2023	SHINE Academy: 2023 Innovations in Health Science Education Annual Conference (15 hours)
June 2022	West Virginia Summer Scholar's Teaching Institute (8 hours)
May 2022	TEACH-S: Texas Education Academies Collaborative for Health Professionals-Southeast Educational Symposium (8 hours)

PROFESSIONAL MEMBERSHIP:

2021-present	Member, Delta Omega Honorary Society in Public Health
2023-2024	Member, American Educational Research Association (AERA)

OTHER SERVICE:

Aug. 2026	Cohost, Fall 2026 New Student Orientation for the Department of Epidemiology (1 hour) <i>UTHealth SPH, Department of Epidemiology</i>
Apr. 2026	Host, Spring 2026 Admitted Student Open House (1 hour) <i>UTHealth SPH, Department of Epidemiology</i>
Feb. 2026	Facilitator, Prospective Epidemiology Student Open House (1 hour) <i>UTHealth SPH, Department of Epidemiology</i>
Jan. 2026	Cohost, Spring 2026 New Student Orientation for the Department of Epidemiology (2 hours) <i>UTHealth SPH, Department of Epidemiology</i>

Sept. 2025	Cohost, Fall 2025 New Student Q & A Session for the Department of Epidemiology for both MPH and PhD students (2 hours) <i>UTHealth SPH, Department of Epidemiology</i>
Aug. 2025	Facilitator support, Fall 2025 New Student Orientation for the Department of Epidemiology (1 hour) <i>UTHealth SPH, Department of Epidemiology</i>
Feb. 2025	Facilitator, Prospective Epidemiology Student Open House (2 hours) <i>UTHealth SPH, Department of Epidemiology</i>
Aug. 2024	Facilitator, PhD Student Career and Professional Development Listening Session (2 hours) <i>UTHealth SPH PhD Epidemiology Student Association (EPSA)</i>
May. 2024	Panelist and Presenter, Fostering Teaching Excellence (1 hour) <i>UTHealth SPH Department of Epidemiology Faculty Retreat</i>
Nov. 2023	Panelist, Careers in Epidemiology (2 hours) <i>UTHealth SPH PhD Epidemiology Student Association (EPSA)</i>
Sept. 2023	Community Partner and Small Group Facilitator (4 hours) <i>UTHealth Houston Community Action Poverty Simulator</i>