

DUKE UNIVERSITY SCHOOL OF MEDICINE

CURRICULUM VITAE

**for the Permanent Record and the
Appointment, Promotions and Tenure Committee**

Date CV prepared: January 26, 2025

Name (complete with degrees): Christopher James Nash, MD, EdM

Preferred familiar name: Chris

Primary academic rank: Assistant Professor

Primary academic department: Emergency Medicine

Secondary academic rank (if any): N/A

Secondary academic department (if any): N/A

Other titles (if any): N/A

Rank and date of first Duke Faculty appointment: Medical Instructor, July 15, 2023

NC Medical Board license certificate number: 2023-01053

Next renewal date (month / day / year): 10/10/2024

Specialty certification(s) and date(s): American Board of Emergency Medicine, 2022

Education:

	<u>Institution (Include City, State)</u>	<u>Degree (include major)</u>	<u>Degree Date</u>
High School	Urbana High School Urbana, OH	Diploma	05/23/2009
College	Duke University Durham, NC	AB (Spanish)	05/12/2013
Graduate School	Northwestern University, Feinberg School of Medicine Chicago, IL	MD	05/22/2017

Graduate School	Harvard Graduate School of Education Cambridge, MA	EdM (Technology, Innovation, and Education)	05/26/2022
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Professional training and academic career (chronologically commencing with first postgraduate position):

<u>Institution</u>	<u>Position/Title</u>	<u>Exact Dates</u> <u>(Mo/Day/Yr)</u>
Massachusetts General Hospital & Brigham and Women's Hospital Boston, MA	Resident Emergency Physician Harvard Affiliated Emergency Medicine Residency	06/14/2017-06/30/2021
Massachusetts General Hospital Boston, MA	Emergency Physician Medical Education Fellow	07/01/2021-06/30/2023

Scholarship

For journal references

- PubMed citation format preferred
- Include PMID, PMCID, DOI (if available)
- Number entries sequentially in chronological order, with #1 the oldest
- List all authors, do not use "et al."
- Highlight your name in bold
- Do not list papers in preparation, submitted papers that have not been accepted for publication
- Identify papers accepted for publication but not yet published as "in press"
- Include notation if co-first author (e.g., mark with asterisk or caret, describe co-author role)
- Include notation if scholarship in JEDAI, advocacy, open science domains (e.g., mark with asterisk or caret, identify domain)

A. Publications in refereed journals (refereed journals are scientific publications that have active editorial boards and a system of critical review of all submissions), including:

- **Named author publications**

1. **Nash CJ**, Richards CT, Schwieger G, Malik S, Chiampas GT. Medical Care at a Large Vertical Running Event. *Prehosp Emerg Care*, 22(1):22-27, Jan-Feb 2018. doi: 10.1080/10903127.2017.1347734. Epub 2017 Aug 9. PMID: 28792295.
2. **Nash CJ**, Erickson TB. An Historical and Medical Review of the North American Timber Rattlesnake (*Crotalus horridus*). *J Pharmacol Clin Toxicol*, 6(2), 2018. doi: 10.47739/2333-7079/1106. Epub 2018 Apr 30.
3. Kimberly HH, **Nash CJ**. Postmenopausal Patient with Suprapubic Pain. *J Emerg Med*, 56(1):e19-e21,

- Jan 2019. doi: 10.1016/j.jemermed.2018.09.051. Epub 2018 Nov 9. PMID: 30420305.
4. Tonellato DJ, Ransohoff JR, **Nash C**, Melanson SEF, Petrides AK, Tolan NV, Goldberg SA, Boyer EW, Chai PR, Erickson TB. Traumatic pedestrian and bicyclist injuries associated with intoxication. *Am J Emerg Med*, 45:192-195, Jul 2021. doi: 10.1016/j.ajem.2020.08.024. Epub 2020 Aug 16. PMID: 33046308; PMCID: PMC7884480.
 5. Lin M, Phipps M, Yilmaz Y, **Nash CJ**, Gisondi MA, Chan TM. A Fork in the Road for Emergency Medicine and Critical Care Blogs and Podcasts: Cross-sectional Study. *JMIR Med Educ*, 8(4):e39946, Oct 28, 2022. doi: 10.2196/39946. PMID: 36306167; PMCID: PMC9652734.
 6. Lin M, Phipps M, Chan TM, Thoma B, **Nash CJ**, Yilmaz Y, Chen D, He S, Gisondi MA. Digital Impact Factor: A Quality Index for Educational Blogs and Podcasts in Emergency Medicine and Critical Care. *Ann Emerg Med*. 2023 Jul;82(1):55-65. doi: 10.1016/j.annemergmed.2023.02.011. Epub 2023 Mar 25. PMID: 36967275.
 7. Hayden EM, **Nash CJ**, Farrell SE. Simulated video-based telehealth training for emergency physicians. *Front Med (Lausanne)*. 2023 Aug 28;10:1223048. doi: 10.3389/fmed.2023.1223048. PMID: 37700768; PMCID: PMC10494251.
 8. Preiksaitis C, **Nash C**, Gottlieb M, Chan TM, Alvarez A, Landry A. Brain versus bot: Distinguishing letters of recommendation authored by humans compared with artificial intelligence. *AEM Educ Train*. 2023 Nov 30;7(6). doi: 10.1002/aet2.10924. PMID: 38046089; PMCID: PMC10688127.
 9. Natesan S, Rivera M, Angeles N, **Nash CJ**. Hanging and Strangulation Injuries in Intimate Partner Violence. *Emergency Medicine Reports*. 2023 Dec 15;44:22.
<https://www.reliasmmedia.com/articles/hanging-and-strangulation-injuries-in-intimate-partner-violence>
 10. Preiksaitis C, Abubshait L, Bowers K, Landry A, Lewis K, Little A, **Nash CJ**, Gottlieb M. Trends and Predictors of Unfilled Emergency Medicine Residency Positions: A Comparative Analysis of the 2023 and 2024 Match Cycles. *AEM Educ Train*. 2024 Aug 11;8(4). doi: 10.1002/aet2.11013. PMID: 39139517; PMCID: PMC11317622
 11. Rivera MJ, **Nash CJ**, Ousta A, Nawaz A, Natesan S. Hanging and Strangulation Injuries in the Emergency Department. *Critical Decisions in Emergency Medicine*. 2024 Oct;38(10)
 12. Thatcher EC, Hatter K, Kohli HS, **Nash CJ**. A Pregnant Woman With Vaginal Bleeding. *Ann Emerg Med*. 2024 Nov;84(5):591-592. doi: 10.1016/j.annemergmed.2024.05.021. PMID: 39428197.
 13. **Nash CJ**, Farrell SE, Carreras Tartak JA, Wagner A, Brandt LC, Hayden EM. Telehealth equity and access communication skills pilot simulation for practicing clinicians. *PLoS One*. 2025 Jan 6;20(1):e0302804. doi: 10.1371/journal.pone.0302804. PMID: 39761252; PMCID: PMC11703036.
 14. Wang L, Hayden EM, **Nash CJ**, Chandra S, Whitehead D, Fabiano A, Kolkin A, Tomovic M, Hou P. Fundamentals of Telehealth: A Learning Compendium for Residents. *AEM Educ Train*. (Accepted, In Press)

- **Study Group publications (multicenter investigations where you were a PI or investigator, but not a named author)** N/A
- **Letters and editorials** N/A
- **Invited scientific reviews** N/A
- **Position and background papers (e.g., guidelines, consensus statements)** N/A

B. Books (indicate as author or editor):

- **Books** N/A
- **Book chapters** N/A

C. Digital output, other forms of public dissemination (other than publications / presentations):

1. **Nash CJ**, Takayesu JK. Flash Pulmonary Edema Case. Full Code Emergency Room Simulator. Minerva Medical Simulation. February 2018. <https://full-code.com/>.
2. Goldberg SA, Richards CT, **Nash CJ**. Episode 38: Medical Care at a Large Vertical Running Event. Prehospital Emergency Care Podcast. March 2018. <http://pecpodcast.libsyn.com/prehospital-emergency-care-podcast-16>.
3. **Nash CJ**, Monette DL. Tumor Lysis Syndrome. ALiEM Cards. May 2018. <https://www.aliemcards.com/cards/tumor-lysis-syndrome/>
4. Duggan NM, Landry AI, **Nash CJ**. Episode 3: Diversity in Medicine. Saving Society Podcast. July 2019. <https://soundcloud.com/user-166591356>
5. Al Alvarez A, Gallegos M, Dhir B, Landry A, **Nash CJ**, Ankel F, Lin M. Academic Life in Emergency Medicine. ALiEM Statement Against Racism. June 2020. <https://www.aliem.com/statement-against-racism/>
6. Ngo R, Lee C, Eyre A, **Nash CJ**. Smiler 101: Oral Exam and Regional Anesthesia in Dental Care. Academic Life in Emergency Medicine. September 2021. <http://www.aliem.com/smiler-101/>
7. Ngo R, Lee C, Eyre A, **Nash CJ**. Smiler 102: Dental Trauma. Academic Life in Emergency Medicine. September 2021. <http://www.aliem.com/smiler-102/>
8. Ngo R, Lee C, Eyre A, **Nash CJ**. Smiler 103: Odontogenic Infections. Academic Life in Emergency Medicine. September 2021. <http://www.aliem.com/smiler-103/>
9. Ngo R, Lee C, Eyre A, **Nash CJ**. Smiler 104: Odontogenic Infections. Academic Life in Emergency Medicine. September 2021. <http://www.aliem.com/smiler-104/>
10. Gisondi M, Lin M, Chan T, **Nash CJ**, Phipps M, Yilmaz Y. The Fall of FOAM. Academic Life in Emergency Medicine. October 2022. <https://www.aliem.com/fall-foam-blogs-podcasts/>
11. Helman A, Ngo R, **Nash C**. Atraumatic Dental Emergencies. Emergency Medicine Cases. August 2023. <https://emergencymedicinecases.com/atraumatic-dental-emergencies>
12. Helman A, Ngo R, **Nash C**. Traumatic Dental Emergencies. Emergency Medicine Cases. August 2023. <https://emergencymedicinecases.com/traumatic-dental-emergencies>
13. **Nash C**, Davis M. How To Do a Peer Review. AEM E&T Podcasts. January 2024. <https://www.saem.org/publications/aem-education-and-training/aem-e-t-podcasts/how-to-do-a-peer-review>.

Social media

1. **Nash CJ**. Smiler 101: Supraperiosteal Block. YouTube.com. September 2021. <https://www.youtube.com/watch?v=6o1lTCJvT6Y>

2. **Nash CJ.** SmilER 101: Inferior Alveolar Nerve Block. YouTube.com. September 2021. <https://www.youtube.com/watch?v=o9UcsAp6BHU>

Traditional media (e.g., broadcast, news media) N/A

D. Abstracts (list up to 10 of your most impactful abstracts):

1. **Nash CJ,** Richards CT, Schwieger G, Malik S, Chiampas GT. Medical Care at a Large Vertical Running Event. *Prehospital Emergency Care*, 19(1):176, 2015.
2. Worthington J, **Nash C,** Libeu P, Schrift M. Lateral Ventricular Choroid Plexus Papilloma Presenting with a Schizophrenia-like Psychosis. *Journal of Neuropsychiatry and Clinical Neurosciences*, 28(3), 2016.
3. Tonellato D, **Nash C,** Ransohoff J, Melanson SEF, Petrides AK, Tolan NV, Goldberg SA, Boyer EW, Chai PR, Erickson TB. Traumatic Pedestrian and Bicyclist Injuries Associated with Intoxication-Look Both Ways Before Crossing. *Clinical Toxicology*, 57(10):1039-1040, 2019.
4. Miller J, Wang L, Hayden E, Fabiano A, Chandra S, Whitehead D, Kolkin A, Dickens J, Hou P, **Nash C,** Tomovic M. Creating an Open Source Resident/Student Telehealth Collection. *Annals of Emergency Medicine*, 82(4):S116, 2023.

E. Non-refereed publications (non-refereed publications refer to published manuscripts which are not subject to a system of critical review – articles are often solicited by the publisher):

1. Chary A, Dean L, **Nash C,** Landry A, Shappell E. Promoting Gender Equity in Residency Training through Consensus Building. *AWAEM Awareness*, 2020:8-10, Jun 2020.
2. Chary A, Dean L, **Nash C,** Landry A, Shappell E. Promoting Gender Equity in Residency Training through Consensus Building. *SAEM Pulse*. July-August 2020. 2020:48-49.
3. Chary A, Dean L, **Nash C,** Landry A, Shappell E. Promoting Gender Equity in Residency Training through Consensus Building. SheMD.com. August 2020. <https://www.shemd.org/post/promoting-gender-equity-in-residency-training-through-consensus-building>
4. **Nash CJ.** Reflection: AEM E&T Fellow Editor-in-Training Program. *SAEM Pulse*. May-June 2023. 2023:90.

F. Other forms of scholarship dissemination (not included above):

Poster and Other Presentations:

1. Walsh C, **Nash CJ,** Huda N. “Not just 'Studying About' but 'Thinking From/With' New Worlds, Old Worlds, Future Worlds: Andean Cosmologies, Gender, and Buen Vivir”. Co-Keynote Speaker at the Duke Romance Studies Undergraduate Research Conference, Durham, NC, March 2012.
2. **Nash CJ,** Richards CT, Schwieger G, Carreno D, Forth V, Mather K, Malik S, Chiampas G. “Medical Care at a Large Vertical Running Event”. Poster presentation at the Northwestern Area of Scholarly Concentration Research Day, Chicago, IL, November 2014.
3. **Nash CJ,** Richards CT, Schwieger G, Carreno D, Forth V, Mather K, Malik S, Chiampas G. “Medical Care at a Large Vertical Running Event”. Poster presentation at the National Association of EMS

- Physicians Annual Conference, New Orleans, LA, January 2015.
4. Worthington J, **Nash C**, Libeu P, Schrift M. “Lateral Ventricular Choroid Plexus Papilloma Presenting with a Schizophrenia-like Psychosis”. Poster presentation at the American Neuropsychiatric Association Annual Meeting, San Diego, CA, March 2016.
 5. Hayden EM, **Nash CJ**, Farrell SE. “Simulated Video-based Telehealth Training for Practicing Physicians”. Virtual poster presentation at the Weill Cornell Medicine Center for Virtual Care, Virtual Healthcare in the Mainstream Symposium & Research Forum, New York City, NY, October 2022.
 6. **Nash CJ**, Hayden E, Farrell S, Brandt L, Carreras Tartak J. “Developing Telehealth Communications Skills through an Innovative Pilot Simulation Program for Practicing Clinicians”. Virtual poster presentation at the Association of American Medical Colleges Telehealth Equity Catalyst Award Symposium, Washington, DC, August 2023.
 7. Miller J, Wang L, Hayden E, Fabiano A, Chandra S, Whitehead D, Kolkin A, Dickens J, Hou P, **Nash C**, Tomovic M. Creating an Open Source Resident/Student Telehealth Collection. Poster presentation at ACEP23 Research Forum, Philadelphia, PA. October 2023.
 8. **Nash CJ**, Vissoci JRN, Broder J, Dylla L. Evaluating the Validity of App-Based Simulation in Emergency Medical Education. Abstract presentation at SAEM24, Phoenix, AZ. May 2024.
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Appointments and Recognition:

A. Scientific reviewer (e.g., editorial boards, study section review group):

1. Peer Reviewer, *Emergency Medicine Journal*, 2021. 1 Article.
2. Educational Research and Innovations Abstract Reviewer, *CORD Academic Assembly*, 2021. 23 Abstracts.
3. Peer Reviewer, *Academic Emergency Medicine Education and Training*, 2022-Present. 10 Articles.
4. Editorial Board as Fellow Editor-in-Training, *Academic Emergency Medicine Education and Training*, 2022-2023.
5. Peer Reviewer, *Journal of Graduate Medical Education*, 2023. 1 Article.

B. Professional societies, service organizations (list membership status, leadership positions, committee membership, etc.):

- American Medical Association, 2013-Present
- Emergency Medicine Residents’ Association, Member, 2017-2023
- Massachusetts Medical Society, Member, 2017-2023
- American College of Emergency Physicians, Member, 2017-Present
- Society of Academic Emergency Medicine, Member, 2017-Present

C. Advisory and consultant appointments (include government, non-government organizations, life science companies, private organizations, etc.): N/A

Date(s)

Appointment(s)

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D. Scholarly societies (Alpha Omega Alpha, Sigma Xi, Phi Beta Kappa, etc.):

Alpha Omega Alpha, 2016
Gold Humanism Honor Society, 2017

E. Professional awards and recognition:

Date	Award(s)
2016	Award for Excellence in Community Service and Engagement, Northwestern University Feinberg School of Medicine
2017	Phi Rho Sigma Dennis Award, Northwestern University
2019-2020	Resident Ultrasound Champion, Harvard Affiliated Emergency Medicine Residency
2020	Mass General Brigham Resident/Fellow as Teacher Award, Nominee
2021	Harvard Affiliated Emergency Medicine Residency Teaching Resident of the Year
2024	Duke Emergency Medicine Teaching Attending of the Year
2024-	Duke Emergency Medicine Residency Core Faculty

Areas of research interests (basic and applied) - list:

- Digital Medical Simulation
- Digital Scholarship
- Program Evaluation
- Artificial Intelligence in Medical Education and Assessment
- Telehealth Education

Research support

Current: N/A

Project title:

Grant number:

PI:

Your role:

Your % effort:

Funding source:

Funding amount:

Duration:

Project synopsis:

Completed:

Project title: Development and Validation of a Communications Curriculum for Equitable Telehealth Practice

Grant number: N/A

PI: Christopher J. Nash, MD, EdM

Your role: PI

Your % effort: 2%

Funding source: Association of American Medical Colleges

Funding amount: \$15,000

Duration: June 1, 2022 – May 31, 2023

Project synopsis: Despite the dramatic advances in telehealth, a competency-based educational approach to the delivery of effective and equitable care via telehealth has not been standardized nor evaluated. To address this gap, we propose the development of a communications curriculum for healthcare providers who employ telehealth modalities, to be validated using a standardized patient (SP) experience designed to provide evaluation of the relevant AAMC competencies for the practicing clinician. Simulation with the use of standardized patients in medical education and within telehealth education in particular have been previously utilized with success; however, this is the first study to our knowledge that focuses on training practicing clinicians' optimal communication skills for telehealth with a focus on equity and access. We see telehealth education of the practicing clinician (MD, PA, or NP) in this pilot as an imminent and urgent need given the current explosion in use of telehealth technologies.

Pending:

Project title: Evaluating the Validity of App-Based Simulation in Emergency Medical Education

Grant number: 292695

PI: Christopher J. Nash, MD, EdM

Your role: PI

Your % effort: 4.5%

Funding source: SAEMF

Funding amount: \$25,000

Duration: 1 year

Project synopsis: This project aims to gather validity evidence for app-based medical simulation utilizing the Full Code medical simulation app. Full Code allows learners to work through virtual patient cases and receive performance scores. We aim to assess this app as a formative assessment tool for emergency medicine residents. With the American Board of Emergency Medicine moving toward Objective Standardized Clinical Evaluations for accrediting graduating residents, and with the movement of medical education toward a competency-based model at large, simulation-based tools offer a promising method for formative feedback and summative evaluations. The project will involve mapping a subset of Full Code cases to Emergency Medicine Entrustable Professional Activities to ensure content validity. EM experts will reach consensus on the mappings. Validity evidence will be gathered utilizing Messick's framework. Response process validity will be examined by having researchers play through sample cases and evaluate if they measure intended constructs. Relationship to other variables will be explored by comparing the performance of residents at different training levels. We will also assess internal structure by analyzing item consistency and test-retest reliability.

Mentoring activities (for each mentee list the duration of mentor-mentee relationship and any resulting scholarship (e.g., abstract, manuscript, presentation, award, grant, academic appointment):

- **Faculty** N/A
- **Fellows / post-doctoral fellows** N/A
- **Residents**
 - **2023-2024:**
 - **Amna Nawaz, PGY2** – 3 months, resulting in one peer-reviewed manuscript
 - **Alaa Ousta, PGY3** – 3 months, resulting in one peer-reviewed manuscript
 - **Nina Angeles, PGY2** – 3 months, resulting in one peer-reviewed manuscript
 - **Raelynn Vigue, PGY1** – 6 months, resulting in the development of a PIONEER lecture on emergency medicine procedures for the Duke University medical students
 - **Timothy Beck, PGY2** – 8 months working directly with Dr. Beck as his assigned mentor for a routine corrective action. We prioritized development of clinical knowledge through dedicated boards study, on-shift implementation of feedback, and wellness.
 - **2024-2025**
 - **Carmen Estrada Huerta, PGY3** – 3 months, mentored through the process of applying to medical education fellowship, including helping with interview preparation and writing letters of recommendation, resulting in successfully earning a position at the University of California San Francisco Fresno emergency medical education fellowship.
 - **Raelynn Vigue, PGY2** – Presently mentoring through a project on the use of 3D printing for creation of low-cost, high-fidelity simulation equipment for improving on-shift teaching. IRB has been approved, and we anticipate completing a peer-reviewed manuscript for publication.
 - **Raquel Gil-Puglisi, PGY2** – Presently mentoring through a project on the use of 3D printing for creation of low-cost, high-fidelity simulation equipment for improving on-shift teaching. IRB has been approved, and we anticipate completing a peer-reviewed manuscript for publication.
 - **Jack Dufton, PGY1** – Presently mentoring through a project on the use of 3D modeling to create a high-fidelity simulation tool for peritonsillar abscess drainage. We anticipate a peer-reviewed publication.
 - **Patricia Hernández, PGY3** – 4 months, presently mentoring through a project on the variability in performance of ChatGPT on emergency medicine boards multiple choice questions. We anticipate a peer-reviewed publication.
- **Medical students**

- **2024-2025:**
 - **Olanrewaju Adisa, MS4** – 2 months in preparation for residency applications
 - **Raquel Garcia, MS2** – 8 months in the continuity clinic

Education / teaching activities (residents, fellows, medical students, CME):

- **Lectures (title, date):**

Local Teaching and Lectures:

1. “Ultrasound Anatomy,” Medical Student Session, ~10 learners, Harvard Medical School, Boston, MA, 8/28/2017 (3 hours)
2. “Transition to the Principle Clinical Experience Simulation Sessions – Abdominal Pain and Chest Pain,” Medical Student Session, ~10 learners, Harvard Medical School, Boston, MA, 8/30/2017 (4 hours)
3. “Suturing and Airway Lab for Emergency Medicine Rotators,” Medical Student Session, ~20 learners, Massachusetts General Hospital, Boston, MA, 8/31/2017 (3 hours)
4. “Transition to the Principle Clinical Experience Procedural Skills Program – Abdominal Pain and Chest Pain,” Medical Student Session, ~20 learners, Harvard Medical School, Boston, MA, 10/5/2017 (4 hours)
5. “Emergency Medicine Interest Group Skills Lab,” Medical Student Session, ~10 learners, Brigham and Women’s Hospital STRATUS Simulation Lab, Boston, MA, 10/31/2017 (4 hours)
6. “Ultrasound-Guided IV for Internal Medicine Residents,” Resident In-Person Instruction, ~8 learners, Brigham and Women’s Hospital, Boston, MA, 2/13/2018 (4 hours)
7. “Follow-Up Conference,” Resident Lecture, ~60 learners, Harvard Affiliated Emergency Medicine Residency Conference, Massachusetts General Hospital, Boston, MA, 2/20/2018 (1 hour)
8. “Nephrolithiasis and Ultrasound,” Ultrasound Conference, ~10 learners, Massachusetts General Hospital, Boston, MA, 2/21/2018 (1 hour)
9. “IV Fluids and Fluid Balance,” Journal Club, ~25 learners, Harvard Affiliated Emergency Medicine Residency, Boston, MA, 2/27/2018 (2 hours)
10. “Guess the Foreign Body,” Ultrasound Conference, ~10 learners, Brigham and Women’s Hospital, Boston, MA, 3/1/2018 (1 hour)
11. “Epic Orientation for Interns,” Resident Lecture, 15 learners, Harvard Affiliated Emergency Medicine Residency, Massachusetts General Hospital, Boston, MA, 6/26/2018 (3.5 hours)
12. “Transition to the Principle Clinical Experience Simulation Sessions – Abdominal Pain and Chest Pain,” Medical Student Session, ~10 learners, Harvard Medical School, Boston, MA, 8/29/2018 (4 hours)
13. “Ultrasound Anatomy,” Medical Student Session, Harvard Medical School, ~10 learners, Boston, MA, 8/30/2018 (3 hours)
14. “Ultrasound Course,” Instructor, CME Course, ~25 learners, Massachusetts General Hospital Institute for Health Professionals, 10/20/2018 (6 hours)
15. “Emergency Medicine Interest Group Skills Lab,” Medical Student Session, ~20 learners, Brigham and Women’s Hospital STRATUS Simulation Lab, Boston, MA, 11/13/2018 (4 hours)
16. “ACLS Recertification”, Airway Instructor, ~20 learners, Massachusetts General Hospital,

Boston, MA, 2/11/2019 (4 hours)

17. “ACLS Recertification”, Airway Instructor, ~20 learners, Massachusetts General Hospital, Boston, MA, 2/25/2019 (4 hours)
18. “Toxicology In-Service and Boards Review,” Resident Lecture, ~50 learners, Harvard Affiliated Emergency Medicine Residency Conference, Massachusetts General Hospital, Boston, MA, 2/19/2019 (1 hour)
19. “Ophthalmology,” Journal Club, ~25 learners, Harvard Affiliated Emergency Medicine Residency, Boston, MA, 3/5/2019 (2 hours)
20. “Epic Orientation for Interns,” Intern Lecture, 15 learners, Harvard Affiliated Emergency Medicine Residency, Massachusetts General Hospital, Boston, MA, 6/21/2019 (3.5 hours)
21. “Trauma Conference,” Resident Lecture, ~60 learners, Harvard Affiliated Emergency Medicine Residency Conference, Massachusetts General Hospital, Boston, MA, 7/9/2019 (1 hour)
22. “Top 10 Most Common Diagnoses,” Intern Lecture, 15 learners, Harvard Affiliated Emergency Medicine Residency Conference, Massachusetts General Hospital, Boston, MA, 7/18/2019 (1.5 hours)
23. “Antibiotics for Appendicitis and Diverticulitis,” Journal Club, ~25 learners, Harvard Affiliated Emergency Medicine Residency, Boston, MA, 7/22/2019 (2 hours)
24. “Transition to the Principle Clinical Experience Simulation Sessions – Altered Mental Status” Medical Student Session, ~10 learners, Harvard Medical School, Boston, MA, 8/28/2019 (3 hours)
25. “Transition to the Principle Clinical Experience Simulation Sessions,” Defibrillators, Medical Student Session, ~20 learners, Harvard Medical School, Boston, MA, 8/28/2019 (3 hours)
26. “Transition to the Principle Clinical Experience Simulation Sessions – Airway Station,” Medical Student Session, ~20 learners, Harvard Medical School, Boston, MA 9/11/2019 (3 hours)
27. “Introduction to Knobology and FAST,” Medical Student Session, ~30 learners, Brigham and Women’s Hospital, Boston, MA, 2/3/2020 (2 hours)
28. “Ultrasound Guided Central Line Training,” Intern Simulation Session, 15 learners, Harvard Affiliated Emergency Medicine Residency Conference, Brigham and Women’s Hospital, Boston, MA, 7/2/2020 (2 hours)
29. “HAEMR Quiz Cup – Infectious Diseases Boards Review,” Resident Lecture, ~45 learners, Harvard Affiliated Emergency Medicine Residency Conference, Massachusetts General Hospital, Boston, MA, 7/14/2020 (0.5 hours)
30. “Top 10 Most Common Diagnoses,” Intern Lecture, 15 learners, Harvard Affiliated Emergency Medicine Residency Conference, Massachusetts General Hospital, Boston, MA, 7/21/2020 (1.5 hours)
31. “Transition to the Principle Clinical Experience Simulation Sessions – Airway Station,” Medical Student Session, ~20 learners, Harvard Medical School, Boston, MA, 9/2/2020 (4 hours)
32. “Burgundy, Bumpy, and Bubby: Emergency Department Rashes,” Physician Assistant Educational Conference Lecture, ~25 learners, Massachusetts General Hospital, Boston, MA, 9/3/2020 - Virtual (1 hour)
33. “Morbidity and Mortality Conference,” Resident Lecture, ~50 learners, Harvard Affiliated Emergency Medicine Residency Conference, Brigham and Women’s Hospital, Boston, MA, 9/8/2020 (1 hour)
34. “Transition to the Principle Clinical Experience Simulation Sessions – Airway Station,” Medical Student Session, ~20 learners, Harvard Medical School, Boston, MA, 9/9/2020 (4 hours)
35. “Clerkship Case Presentation – Cardiac Tamponade and Pericardiocentesis,” Medical Student Session, ~20 learners, Harvard Affiliated Emergency Medicine Residency, Boston, MA, 9/14/2020 – Virtual (0.5 hours)

36. "Transition to the Principle Clinical Experience Simulation Sessions – Airway Station," Medical Student Session, ~20 learners, Harvard Medical School, Boston, MA, 9/16/2020 (4 hours)
37. "HAEMR Quiz Cup – OB/GYN Boards Review," Resident Lecture, Harvard Affiliated Emergency Medicine Residency Conference, ~45 learners, Massachusetts General Hospital, Boston, MA, 10/13/2020, (0.5 hours)
38. "HAEMR Quiz Cup – Vascular Medicine Boards Review," Resident Lecture, Harvard Affiliated Emergency Medicine Residency Conference, ~45 learners, Massachusetts General Hospital, Boston, MA, 1/26/2021 (0.5 hours)
39. "Clinical Showcase – Cardiac Tamponade and Pericardiocentesis," Medical Student Session, ~20 learners, Harvard Affiliated Emergency Medicine Residency, Boston, MA, 2/2/2021 - Virtual (0.5 hours)
40. "Disclosure of Medical Errors in the Emergency Department," Resident Simulation Session, ~20 learners, Harvard Affiliated Emergency Medicine Residency, Boston, MA, 2/5/2021 (1 hour)
41. "Functional Anatomy of the Thorax," Medical Student Anatomy Lab Session, ~25 learners, Harvard Medical School, Boston, MA, 2/12/2021 (2 hours)
42. "Emergency Medicine Capstone Direct Observation," Medical Student Direct Observations and Assessments, 3 learners, Brigham and Women's Hospital, Boston, MA, 3/12/2021 (3 hours)
43. "Subclavian Central Line Training," PGY-2 Simulation Session, 15 learners, Harvard Affiliated Emergency Medicine Residency Conference, Brigham and Women's Hospital, Boston, MA, 3/23/2021 (2 hours)
44. "Ultrasound Jeopardy," Morning Report, ~15 learners, Harvard Affiliated Emergency Medicine Residency, Boston, MA, 4/2/2021 - Virtual (2 hours)
45. "Emergency Medicine Capstone Direct Observation," Medical Student Direct Observations and Assessments, 3 learners, Brigham and Women's Hospital, Boston, MA, 4/16/2021 (3 hours)
46. "HAEMR Quiz Cup – Ortho and Dentistry Review," Resident Lecture, Harvard Affiliated Emergency Medicine Residency Conference, ~45 learners, Massachusetts General Hospital, Boston, MA, 4/20/2021 (0.5 hours)
47. "Creation of Educational Media," Senior Project Day Lecture, ~45 learners, Harvard Affiliated Emergency Medicine Residency, Boston, MA, 5/25/2021 (0.5 hours)
48. "HAEMR Quiz Cup – Toxicology Review," Resident Lecture, ~45 learners, Harvard Affiliated Emergency Medicine Residency Conference, Massachusetts General Hospital, Boston, MA, 5/31/2021 (0.5 hours)
49. "Upper GI Bleed and Mesenteric Ischemia," Resident Simulation Session, ~30 learners, Harvard Affiliated Emergency Medicine Residency, Boston, MA, 7/27/2021 (2 hours)
50. "Anaphylaxis and Cardiac Arrest," Dental Resident Simulation Session, 3 learners, Massachusetts General Hospital, Boston, MA, 8/27/2021 (2 hours)
51. "Transition to the Principle Clinical Experience Simulation Sessions – Defibrillator Station," Medical Student Session, ~35 learners, Harvard Medical School, Boston, MA, 9/1/2021 (3 hours)
52. "Shortness of Breath," High School Student Simulation Session, Youth in Science Healthcare Simulation, ~40 learners, Massachusetts General Hospital, Boston, MA, 2/1/2022 (2 hours)
53. "HMS Virtual SIM," Medical Student Simulation Session, ~10 learners, Massachusetts General Hospital, Boston, MA, 2/7/2022 - Virtual (2 hours)
54. "Hyperkalemia and Massive Pulmonary Embolism," Medical Student Clerkship Simulation Session, 4 learners, Massachusetts General Hospital, Boston, MA, 5/9/2022 (2 hours)

55. "Hyperkalemia and Massive Pulmonary Embolism," Medical Student Clerkship Simulation Session, 4 learners, Massachusetts General Hospital, Boston, MA, 6/6/2022 (2 hours)
56. "Hyperkalemia and Massive Pulmonary Embolism," Medical Student Clerkship Simulation Session, 4 learners, Massachusetts General Hospital, Boston, MA, 7/11/2022 (2 hours)
57. "EM Fundamentals – Shock," Intern Lecture, 15 learners, Harvard Affiliated Emergency Medicine Residency Conference, Massachusetts General Hospital, Boston, MA, 7/20/2022 - Virtual (1 hour)
58. "Procedural Sedation," Resident Lecture, ~45 learners, Harvard Affiliated Emergency Medicine Residency Conference, Massachusetts General Hospital, Boston, MA, 7/20/2022 - Virtual (0.5 hours)
59. "Top 10 Most Common Diagnoses," Intern Lecture, 15 learners, Harvard Affiliated Emergency Medicine Residency Conference, Massachusetts General Hospital, Boston, MA, 7/25/2022 - Virtual (1.5 hours)
60. "Shortness of Breath," High School Student Simulation Session, ~40 learners, Youth in Science Healthcare Simulation, Massachusetts General Hospital, Boston, MA, 7/29/2022 (2 hours)
61. "Massive GI Bleed and Massive Pulmonary Embolism," Medical Student Clerkship Simulation Session, ~10 learners, Massachusetts General Hospital, Boston, MA, 8/31/2022 (2 hours)
62. "Cholecystitis and Pneumonia," High School Student Simulation Session, ~40 learners, Youth in Science Healthcare Simulation, Massachusetts General Hospital, Boston, MA, 11/9/2022 (2 hours)
63. "Hyperkalemia and Massive Pulmonary Embolism," Medical Student Clerkship Simulation Session, 6 learners, Massachusetts General Hospital, Boston, MA, 2/6/2023 (2 hours)
64. "Integumentary ITE Review," Resident Lecture, Harvard Affiliated Emergency Medicine Residency Conference, ~45 learners, Massachusetts General Hospital, Boston, MA, 2/14/2023 - Virtual (1 hour)
65. "Emergency Medicine Capstone Direct Observation," Medical Student Direct Observations and Assessments, 3 learners, Massachusetts General Hospital, Boston, MA, 3/20/2023 (1 hour)
66. "Foundations – Asthma and Appendicitis in Pregnancy," Resident Lecture, 15 learners, Harvard Affiliated Emergency Medicine Residency Conference, Massachusetts General Hospital, Boston, MA, 3/22/2023 (1 hour)
67. "Cholecystitis," Middle School Student Simulation Session, ~30 learners, Youth in Science Healthcare Simulation, Massachusetts General Hospital, Boston, MA, 3/27/2023 (2 hours)
68. "Central Lines and Transvenous Pacemakers," Medical Student Clerkship Simulation Session, 6 learners, Massachusetts General Hospital, Boston, MA, 6/5/2023 (2 hours)
69. "Tube Thoracostomy," Resident Simulation Session, ~30 learners, Duke University School of Medicine Emergency Medicine Residency, Durham, NC, 7/13/2023 (3 hours)
70. "CSI: Intro to Clinical POCUS Session," Medical Student Session, ~50 learners, Duke University School of Medicine, Durham, NC, 8/1/2023 (3.5 hours)
71. "Top 10 Most Common Diagnoses," Medical Student Clerkship Lecture, 4 learners, Duke University School of Medicine, Durham, NC, 8/23/2023 (1 hour)
72. "Vivarium Procedure Lab," Resident Procedural Simulation Session, ~5 learners, Duke University School of Medicine Emergency Medicine Residency, Durham, NC, 8/23/2023 (2 hours)
73. "In-Training Exam Review," Resident Lecture, ~45 learners, Duke University School of Medicine Emergency Medicine Residency, Durham, NC, 9/7/2023 (1 hour)
74. "Introduction to Emergency Medicine Procedures," Medical Student PIONEER Lecture, ~36 learners, Duke University School of Medicine, Durham, NC, 10/24/2023 (1 hour)
75. "Vivarium Procedure Lab," Resident Simulation Session, 1 learner, Duke University School of Medicine Emergency Medicine Residency, Durham, NC, 11/8/2023 (2 hours)

76. “Neurology Case Discussion,” Resident Lecture, ~36 learners, Duke University School of Medicine Emergency Medicine Residency, Durham, NC, 12/14/2023 (1 hour)
77. “Emergency Management of Hyponatremia and Hypernatremia,” Resident Lecture, ~36 learners, Duke University School of Medicine Emergency Medicine Residency, Durham, NC, 2/1/2024 (1 hour)
78. “Rapid Fire Review – Intro to In-Training,” Resident Lecture, ~36 learners, Duke University School of Medicine Emergency Medicine Residency, Durham, NC, 2/15/2024 (1 hour)
79. “Corneal Abrasions and Topical Tetracaine,” Journal Club, 25 learners, Duke University School of Medicine Emergency Medicine Residency, Durham, NC, 2/20/2024 (1 hour)
80. “In-Service Exam Review - Trauma,” Resident Lecture, ~36 learners, Duke University School of Medicine Emergency Medicine Residency, Durham, NC, 2/22/2024 (1 hour)
81. “Introduction to Emergency Medicine Procedures,” Medical Student PIONEER Lecture, ~30 learners, Duke University School of Medicine, Durham, NC, 3/6/2024 (1 hour)
82. “Introduction to Emergency Medicine Procedures,” Medical Student PIONEER Lecture, ~30 learners, Duke University School of Medicine, Durham, NC, 6/3/2024 (1 hour)
83. “Breath of Fresh Air: A Guide to Emergency Airway Management,” Intern Lecture, 10 learners, Duke University School of Medicine Emergency Medicine Residency, Durham, NC, 6/3/2024 (1 hour)
84. “Subclavian and Femoral Central Venous Access,” Resident Simulation Session, ~35 learners, Duke University School of Medicine Emergency Medicine Residency, Durham, NC, 7/25/2024 (4 hours)
85. “Burgundy, Bumpy, and Bubbly: Emergency Department Rashes,” Resident Lecture, ~36 learners, Duke University School of Medicine Emergency Medicine Residency, Durham, NC, 8/8/2024 – Virtual (1 hour)
86. “Pacemakers in the Emergency Department,” Resident Lecture, ~36 learners, Duke University School of Medicine Emergency Medicine Residency, Durham, NC, 8/15/2024 – Virtual (1 hour)
87. “Sepsis, GU, and GI – Case-Based Learning,” Medical Student Clerkship Lecture, 4 learners, Duke University School of Medicine, Durham, NC, 8/29/2024 (1 hour)
88. “Introduction to AI in Medical Education,” MELT and FACT Lecture, ~65 learners, Duke University School of Medicine, Durham, NC, 9/12/2024 (1 hour)
89. “Emergency Medicine Mock Interviews,” Medical Student Simulation Session, 3 learners, Duke University School of Medicine, Durham, NC, 10/29/2024 (1.5 hours)

Regional Teaching and Lectures

1. “Airway Competency Evaluation,” Paramedic Student Simulation Session, ~40 learners, Pro EMS Center for Medics, Cambridge, MA, 3/2/2019 (4 hours)
2. “Beta Blocker Overdose,” Paramedic Student Simulation Session, ~40 learners, Pro EMS Center for Medics, Cambridge, MA, 5/4/2019 (4 hours)
3. “Drowning,” Paramedic Student Simulation Session, ~40 learners, Pro EMS Center for Medics, Cambridge, MA, 5/18/2019 (4 hours)
4. “Pediatric Vascular Access and IOs,” Paramedic Student Simulation Session, ~40 learners, Pro EMS Center for Medics, Cambridge, MA, 6/11/2019 (4 hours)
5. “Effective Communication,” Paramedic Student Lecture, ~40 learners, Pro EMS Center for Medics, Cambridge, MA, 7/10/2019 (1 hour)
6. “Rapid Sequence Intubation,” Paramedic Student Lecture, ~40 learners, Pro EMS Center for Medics,

- Cambridge, MA, 8/8/2019 (2 hours)
7. "Membrane Physiology," Paramedic Student Lecture, ~40 learners, Pro EMS Center for Medics, Cambridge, MA, 8/10/2019 (2 hours)
 8. "Emergency Pediatric Airway Management," Paramedic Student Simulation Session, ~40 learners, Pro EMS Center for Medics, Cambridge, MA, 8/10/2019 (4 hours)
 9. "Cortical Pharmacology," Paramedic Student Lecture, ~40 learners, Pro EMS Center for Medics, Cambridge, MA, 8/24/2019 (2 hours)
 10. "Opioid Overdoses," Paramedic Student Lecture, ~40 learners, Pro EMS Center for Medics, Cambridge, MA, 8/27/2019 (2 hours)
 11. "The Neurological Assessment," Paramedic Student Lecture, ~40 learners, Pro EMS Center for Medics, Cambridge, MA, 8/27/2019 (4 hours)
 12. "EKG Interpretation – General," Paramedic Student Lecture, ~40 learners, Pro EMS Center for Medics, Cambridge, MA, 9/4/2019 (4 hours)
 13. "EKG Interpretation - Atrial and Junctional Rhythms," Paramedic Student Lecture, ~40 learners, Pro EMS Center for Medics, Cambridge, MA, 9/7/2019 (4 hours)
 14. "Respiratory Diseases – Disorders of Oxygenation," Paramedic Student Lecture, ~40 learners, Pro EMS Center for Medics, Cambridge, MA, 10/8/2019 (2 hours)
 15. "Pneumonia," Paramedic Student Lecture, ~40 learners, Pro EMS Center for Medics, Cambridge, MA, 10/8/2019 (2 hours)
 16. "Geriatric Case Studies 1 - Cardiac and Respiratory," Paramedic Student Lecture, ~40 learners, Pro EMS Center for Medics, Cambridge, MA, 11/5/2019 (2 hours)
 17. "Geriatric Case Studies 2 - Delirium and Altered Mental Status," Paramedic Student Lecture, ~40 learners, Pro EMS Center for Medics, Cambridge, MA, 11/5/2019 (2 hours)
 18. "Subarachnoid Hemorrhage," Paramedic Student Lecture, ~40 learners, Pro EMS Center for Medics, Cambridge, MA, 11/19/2019 (1 hour)
 19. "Advanced Medical Life Support – Toxicology," Paramedic Student Lecture, ~40 learners, Pro EMS Center for Medics, Cambridge, MA, 11/19/2019 (1 hour)
 20. "Advanced Medical Life Support – Endocrinology," Paramedic Student Lecture, ~40 learners, Pro EMS Center for Medics, Cambridge, MA, 11/19/2019 (1 hour)
 21. "Advanced Medical Life Support – Neurology," Paramedic Student Lecture, ~40 learners, Pro EMS Center for Medics, Cambridge, MA, 12/5/2019 (1 hour)
 22. "Pediatric Circulatory Emergencies," Paramedic Student Lecture, ~40 learners, Pro EMS Center for Medics, Cambridge, MA, 12/5/2019 (1 hour)
 23. "Emergency Pediatric Airway Management," Paramedic Student Simulation Session, ~40 learners, Pro EMS Center for Medics, Cambridge, MA, 12/5/2019 (4 hours)
 24. "Static Cardiology Rapid EKG Interpretation," Paramedic Student Simulation Session, ~40 learners, Pro EMS Center for Medics, Cambridge, MA, 12/11/2019 (4 hours)
 25. "Trauma Airway Management," Paramedic Student Lecture, ~40 learners, Pro EMS Center for Medics, Cambridge, MA, 1/4/2020 (1 hour)
 26. "Pediatric Respiratory Emergencies," Paramedic Student Lecture, ~40 learners, Pro EMS Center for Medics, Cambridge, MA, 1/4/2020 (1 hour)
 27. "Trauma Airway Management Case," Paramedic Student Simulation Session, ~40 learners, Pro EMS Center for Medics, Cambridge, MA, 1/4/2020 (4 hours)
 28. "Trauma Case," Paramedic Student Simulation Session, ~40 learners, Pro EMS Center for Medics,

- Cambridge, MA, 1/9/2020 (4 hours)
29. "Anaphylaxis Case," Paramedic Student Simulation Session, ~40 learners, Pro EMS Center for Medics, Cambridge, MA, 2/1/2020 (4 hours)
 30. "Difficult and Failed Airways," Paramedic Student Lecture, ~40 learners, Pro EMS Center for Medics, Cambridge, MA, 2/25/2020 (4 hours)
 31. "Peri-Intubation Resuscitation," Paramedic Student Lecture, ~40 learners, Pro EMS Center for Medics, Cambridge, MA, 3/3/2020 (4 hours)
 32. "Dyspnea," Paramedic Student Lecture, ~40 learners, Pro EMS Center for Medics, Cambridge, MA, 4/8/2020 - Virtual (4 hours)
 33. "Altered Mental Status," Paramedic Student Lecture, ~40 learners, Pro EMS Center for Medics, Cambridge, MA, 4/11/2020 - Virtual (4 hours)
 34. "Review of Vasopressors and Inotropes and Shock in the Management of Common Shock States," Paramedic Student Lecture, ~40 learners, Pro EMS Center for Medics, Cambridge, MA, 4/16/2020 - Virtual (4 hours)
 35. "Introduction to Psychiatry," Paramedic Student Lecture, ~40 learners, Pro EMS Center for Medics, Cambridge, MA, 5/9/2020 - Virtual (2 hours)
 36. "Psychiatric and Behavioral Emergencies 1: Disorders of Thought," Paramedic Student Lecture, ~40 learners, Pro EMS Center for Medics, Cambridge, MA, 5/9/2020 - Virtual (2 hours)
 37. "Psychiatric and Behavioral Emergencies 2: Disorders of Mood," Paramedic Student Lecture, ~40 learners, Pro EMS Center for Medics, Cambridge, MA, 5/12/2020 - Virtual (2 hours)
 38. "Psychiatric and Behavioral Emergencies 3: Substance Use Disorders and Intoxication," Paramedic Student Lecture, ~40 learners, Pro EMS Center for Medics, Cambridge, MA, 5/12/2020 - Virtual (2 hours)
 39. "Pediatric Respiratory Emergencies," Paramedic Student Lecture, ~40 learners, Pro EMS Center for Medics, Cambridge, MA, 6/2/2020 - Virtual (2 hours)
 40. "Pediatric Cardiac Emergencies," Paramedic Student Lecture, ~40 learners, Pro EMS Center for Medics, Cambridge, MA, 6/2/2020 - Virtual (2 hours)
 41. "Approach to Multiple Trauma," Paramedic Student Lecture, ~40 learners, Pro EMS Center for Medics, Cambridge, MA, 6/17/2020 - Virtual (2 hours)
 42. "Thoracic Trauma," Paramedic Student Lecture, ~40 learners, Pro EMS Center for Medics, Cambridge, MA, 6/24/2020 - Virtual (2 hours)
 43. "EKG Interpretation," Paramedic Student Lecture, ~40 learners, Pro EMS Center for Medics, Cambridge, MA, 7/29/2020 - Virtual (2 hours)
 44. "Practical Skills Assessments," Paramedic Student Simulation Session, ~40 learners, Pro EMS Center for Medics, Cambridge, MA, 9/9/2020 (6 hours)
 45. "Cardiac Assessment," Paramedic Student Lecture, ~40 learners, Pro EMS Center for Medics, Cambridge, MA, 9/19/2020 - Virtual (4 hours)
 46. "EKG Interpretation," Paramedic Student Lecture, ~40 learners, Pro EMS Center for Medics, Cambridge, MA, 9/22/2020 - Virtual (6 hours)
 47. "Pericarditis Case," Paramedic Student Simulation Session, ~40 learners, Pro EMS Center for Medics, Cambridge, MA, 9/25/2020 (2 hours)
 48. "Respiratory Diseases – Disorders of Oxygenation," Paramedic Student Lecture, ~40 learners, Pro EMS Center for Medics, Cambridge, MA, 10/24/2020 - Virtual (2 hours)
 49. "Neurological Emergencies," Paramedic Student Lecture, ~40 learners, Pro EMS Center for Medics,

Cambridge, MA, 10/27/2020 - Virtual (3 hours)

50. "Cardiovascular Physiology – Intravascular Volume," Paramedic Student Lecture, ~40 learners, Pro EMS Center for Medics, Cambridge, MA, 11/12/2020 - Virtual (2 hours)
51. "Surgical Airway Management," Paramedic Student Lecture, ~40 learners, Pro EMS Center for Medics, Cambridge, MA, 3/20/2021 (4 hours)
52. "Surgical Airway Management," Paramedic Student Simulation Session, ~40 learners, Pro EMS Center for Medics, Cambridge, MA, 3/20/2021 (4 hours)

National Teaching and Lectures

1. "Diabetic Ketoacidosis," Essentials of Emergency Medicine Lecture Series, Oakstone Publishing, Birmingham, AL, 2/28/2020 - Virtual (0.5 hours)
2. "Carbon Monoxide Poisoning," Essentials of Emergency Medicine Lecture Series, Oakstone Publishing, Birmingham, AL, 2/28/2020 - Virtual (0.5 hours)
3. "AEM E&T Peer Reviewer Workshop," Workshop, ~30 learners, SAEM23, Austin, TX, 5/18/2023 (1 hour)
4. "Hot off the Press: Top Medical Education Articles of 2022," Panelist, ~20 learners, SAEM23, Austin, TX, 5/19/2023 (1 hour)
5. "#FOAMed Showcase," Panelist, ~50 learners, SAEM24, Phoenix, AZ, 7/17/2024 (1 hour)
6. "A Primer on Ultrasound Guided Nerve Blocks in the Emergency Department," CME Course Lecture and Simulation Session, ~20 learners, Duke University Advanced Emergency Procedures Simulation Course, Durham, NC, 9/13/2024 (8 hours)
7. PLACEHOLDER for AAMC Presentation February

International Teaching and Lectures

1. "Cognitive Load Theory," Discussion Group Facilitator, ~10 learners, HMS-Egypt Training to Teachers, 1/29/2021 - Virtual (1 hour)
2. "Best Practices in Small Group Teaching," Discussion Group Facilitator, ~10 learners, HMS-Egypt Training to Teachers, 1/30/2021 - Virtual (1 hour)
3. "Student Assessment Tools," Discussion Group Facilitator, ~10 learners, HMS-Egypt Training to Teachers, 2/4/2021 - Virtual (1 hour)
4. "Entrustable Professional Activities, Milestones, and Competencies," Discussion Group Facilitator, ~10 learners, HMS-Egypt Training to Teachers, 2/5/2021 - Virtual (1 hour)
5. "Mentoring and Coaching in Medicine," Discussion Group Facilitator, ~10 learners, HMS-Egypt Training to Teachers, 2/6/2021 - Virtual (1 hour)
6. "Virtual Teaching," Discussion Group Facilitator, ~10 learners, HMS-Egypt Training to Teachers, 2/12/2021 - Virtual (1 hour)
7. "Medical Education Research Ideas," Discussion Group Facilitator, ~10 learners, HMS-Egypt Training to Teachers, 2/13/2021 - Virtual (1 hour)
8. "Goals and Objectives Exercises," Discussion Group Facilitator, ~10 learners, HMS-Egypt Training to Teachers, 3/12/2021 - Virtual (1 hour)
9. "Feedback Exercises," Discussion Group Facilitator, ~10 learners, HMS-Egypt Training to Teachers, 3/18/2021 - Virtual (1 hour)

10. "The Learning Environment," Discussion Group Facilitator, ~10 learners, HMS-Egypt Training to Teachers, 3/19/2021 - Virtual (1 hour)
11. "Best Practices in Clinical Teaching," Discussion Group Facilitator, ~10 learners, HMS-Egypt Training to Teachers, 3/25/2021 - Virtual (1 hour)
12. "Audience Response System Practice Activities," Discussion Group Facilitator, ~10 learners, HMS-Egypt Training to Teachers, 3/26/2021 - Virtual (1 hour)
13. "CME Urology Cases," Discussion Group Facilitator, ~20 learners, United States Department of State Continuing Medical Education, 5/11/2021 - Virtual (1 hour)
14. "Norms and Expectations," Discussion Group Facilitator, ~10 learners, HMS-Egypt Training to Teachers, 5/27/2021 - Virtual (1 hour)
15. "Goals and Objectives," Discussion Group Facilitator, ~10 learners, HMS-Egypt Training to Teachers, 5/27/2021 - Virtual (1 hour)
16. "Feedback Exercises," Discussion Group Facilitator, ~10 learners, HMS-Egypt Training to Teachers, 6/10/2021 - Virtual (1 hour)
17. "Learning Environment Activities," Discussion Group Facilitator, ~10 learners, HMS-Egypt Training to Teachers, 6/11/2021 - Virtual (1 hour)
18. "Medical Education Research Ideas and Discussion," Discussion Group Facilitator, ~10 learners, HMS-Egypt Training to Teachers, 1/30/2022 - Virtual (1 hour)
19. "Learning Environment Group Session," Discussion Group Facilitator, ~10 learners, HMS-Egypt Training to Teachers, 2/17/2022 - Virtual (1 hour)
20. "Norms and Expectations," Discussion Group Facilitator, ~10 learners, HMS-Egypt Training to Teachers, 3/4/2022 - Virtual (1 hour)
21. "Goals and Objectives," Discussion Group Facilitator, ~10 learners, HMS-Egypt Training to Teachers, 3/5/2022 - Virtual (1 hour)
22. "Management of Common ENT Problems," United States Department of State Continuing Medical Education, 1/19/2023 - Virtual (2 hours)

- **Courses taught (title, course number, date, audience):** N/A

- **Education program development (title of program, date first available):**

1. Smiler – A Four-Part Online Series on Dental Trauma and Infection Management, ALiEMU Course, <https://aliemu.com/courses-all/?catid=65>, First Available September 2021, 1317 Course Completions as of April 2024

- **Education assessment methods and tools development (title of tool, date first available):**
N/A

- **Education management and leadership (title, dates – e.g., fellowship director):**

1. National Representative for the Harvard Affiliated Emergency Medicine Residency (HAEMR), Emergency Medicine Residents' Association, 08/2017-09/2020
 - Served as the Harvard Affiliated Emergency Medicine Residency national representative for the EMRA Representative Council. The Council is comprised of members from residencies across

the nation and serves as a forum to discuss issues relating to residents' training, professional development, and ED patients.

2. Resident Leader, HAEMR Intern Boot Camp, 02/2018-06/2021
 - Organized the Intern Boot Camp, a month-long yearly introduction to residency at HAEMR. As part of this effort, we organized shift schedules, delivered introductory lectures, recruited faculty for additional teaching, created online modules for asynchronous learning, and led simulation and ultrasound sessions in an effort to on-board our new interns efficiently while cultivating enthusiasm and comradery.
3. Creator and Webmaster, codealpha.org HAEMR Residency Website, 03/2018-06/2022
 - Built and published a website for the Harvard Affiliated Emergency Medicine Residency to serve as an internal repository of educational resources for our own residents as well as medical students and off-service rotators. The website has also served as an online home for other residency projects, including online modules for the oncoming interns as part of our Boot Camp.
4. Multimedia Communications Editor, Academic Life in Emergency Medicine Chief Resident Incubator, 04/2018-04/2019
 - Supported the day-to-day operations, including organization of monthly update emails, for the "CRincubator," an online project to connect the chief residents of emergency medicine residencies worldwide.
5. Instructor, Pro EMS Center for Medics, 03/2019-06/2022
 - Educated paramedic students in traditional classroom settings via in-person lecture and simulation as well as remotely via Zoom online content delivery, totaling over 200 hours of instruction time.
6. Co-Organizer, HAEMR Health Equity Retreat, 08/2019
 - Together with classmates in the residency, organized a health equity retreat to discuss issues of race, socioeconomic status, gender, and identity in moderated group discussion settings at the residency retreat.
7. Associate Director of Growth, Academic Life in Emergency Medicine, 10/2019-Present
 - Expedited the growth trajectory of the Academic Life in Emergency Medicine (ALiEM) website with an aim of furthering its global emergency educational mission. Specific projects have included redesigning and optimizing the website, writing and revising articles, and developing a strategy for sustainable growth as an enterprise. ALiEM enjoys approximately 1.7 million page views per year.
8. Chief Technology Officer, Academic Life in Emergency Medicine University, 07/2020-Present
 - Operated the Academic Life in Emergency Medicine University (ALiEMU) online learning management system and oversaw all technological endeavors for the platform. Responsibilities included development and incorporation of emerging technologies into a cutting-edge educational platform serving emergency residency programs and the emergency medical community at large. Partnered with the Full Code mobile phone simulation platform to create a simulation curriculum from the core content of the ReSCu Peds EM program for international use. ALiEMU receives approximately half a million page views across ~12000 users per year.
9. Assistant Medical Student Clerkship Director, Combined Clerkship at Massachusetts General Hospital & Brigham and Women's Hospital, 01/2022-06/2023
 - Collaborating with educational leadership from both hospitals, managed the clinical rotation for

visiting and local medical students, including orchestrating lectures, simulation sessions, bedside teaching, and ultrasound activities.

10. Fellow Editor-in-Training, Academic Emergency Medicine Education and Training, 07/2022-06/2023
 - Selected to join the journal board for a year-long fellowship to develop skills in peer review, editing, and publishing of education research manuscripts. Specific responsibilities will include monthly editorial board meetings, editing and reviewing submissions, and refining writing skills through the writing and submission of unique manuscripts.
11. Curriculum Designer, Global Response Medicine, 12/2022-02/2023
 - In the service of this NGO, I created and adapted the gastroenterology curriculum for physicians in Iraq who are newly practicing emergency medicine owing to the needs of the nation, despite training in other fields. I designed a gastroenterology curriculum to prepare them for emergencies of the abdomen, including preparing them for necessary procedures such as paracentesis.
12. Student, Advanced Research Methodology Evaluation and Design: Medical Education (ARMED MedEd), 5/2023 – 5/2024
 - Accepted to join the prestigious ARMED MedEd course, a highly competitive program facilitated by SAEM. This comprehensive course enhances the expertise of health professions education researchers, empowering them to develop rigorous medical education research projects and grant proposals. Learning takes place over a series of virtual and in-person lectures in a longitudinal program alongside fellow learners and national experts. The course culminates with an exclusive scientific session held during SAEM24.
13. Co-Course Director, Duke Emergency Medicine External CME Conference, 04/2024 – 09/2024
 - In this role, I led the planning and execution of Duke's Continuing Medical Education Conference, which took place in September of 2024. This external CME event served our mission of education and enhancing patient care in our community and enhanced the regional and national reputation of Duke Emergency Medicine. It enhanced faculty development locally at Duke, as they were able to develop their individual experience and reputations as educators and teach at a regional/national education event, an important achievement for academic promotion. I also created multiple 3D models for simulation, which will be suitable for publication.
14. Faculty, Duke Medical Education Leadership Track (MELT), 7/2023 – Present
 - Co-directed MELT, a graduate medical education program for current residents and fellows to learn principles of medical education from leaders in the field. Fifty-seven physicians from numerous specialties are enrolled in the course, and we deliver structured coaching to the learners on communication skills, teaching, and the delivery of feedback. Additionally, we mentor them on their own medical education projects, preparing them for their own careers in medical education.
15. Co-Director, Duke Emergency Medicine Education Group (EdG), 7/2023 – Present
 - Together with Dr. Sreeja Natesan and Dr. Megan Rivera, co-created and co-led a scholarship group in the Department of Emergency Medicine with the aim of improving medical education in the Duke Emergency Medicine Residency. This group is also oriented toward advancing the career ambitions of its resident members, who have all demonstrated an interest in scholarship and in educational service. Current works include writing PubMed indexed manuscripts,

encouraging and mentoring resident scholarship and educational lectures, and generating research projects.

16. Member, Duke Emergency Medicine Social Outreach Committee, 11/2023 - Present

- Centered around the goal of increasing Duke Emergency Medicine's social media presence, we have organized a timeline for the release of content on social media platforms including Twitter (X) and Instagram. The overarching goal is to increase Duke's reach and engagement with the academic emergency medicine community, to enhance recruitment, and to disseminate medical education pearls.

17. Preceptor, Duke Interprofessional Education Clinic, 11/2023 - Present

- Precepted in the Interprofessional Education Clinic at Duke University Hospital, whose purpose is to promote interprofessional medical collaboration for learners from various medical backgrounds (MD, physician assistant, nursing, physical therapy). I directly supervised the development of their clinical skills in history taking, examination of patients, ordering of tests and rendering of care for real-world patients, providing supervision and direct feedback in real time.

18. Residency Interviewer, Duke University Emergency Medicine Residency, 12/2023 - Present

- As a residency interviewer, I assess and evaluate prospective candidates applying for residency positions. Leveraging my expertise in the field, I engage in comprehensive interviews to gauge applicants' suitability, professionalism, and alignment with the program's values, contributing to the selection of talented individuals poised to excel at Duke.

19. Fellow, National Board of Medical Examiners (NBME) Strategic Educators Enhancement Fund (SEEF), 06/2024 - Present

- As one of only eight applicants chosen globally for the NBME SEEF Fellowship, I am engaged in an advanced program designed to enhance my skills in medical education, assessment, and training. This fellowship provides a comprehensive curriculum focused on innovative educational strategies and the effective integration of artificial intelligence in medical education. As part of the SEEF program, I collaborate with multidisciplinary teams from the USA and Portugal to design and execute research projects, fostering international partnerships and contributing to the global advancement of medical education. The program supports my professional development through mentorship, collaborative projects, and exposure to cutting-edge research in the field.

- **Invited lectures and presentations (do not list abstract presentations):** N/A
- **Visiting professorships (institution, date):** N/A
- **Scientific meetings – invited (lecture title, meeting, date):** N/A
- **Courses, symposiums, workshops – invited (lecture title, meeting role, meeting, date):** N/A

Clinical activity (describe clinical focus or specialization, clinical commitment as % effort, documentation of regional /institutional referral patterns):

I will dedicate 75% of my time to working clinically in the Department of Emergency Medicine.

Academic, leadership and administrative activities – School of Medicine (list roles / responsibilities, include dates):

N/A

Leadership and administrative activities – hospital / DUHS (list roles / responsibilities, include dates):

8% of my time will be dedicated to the NBME SEEF fellowship, including the conduction of research and generation of manuscripts. The remaining 17% of my time will be dedicated to the education of residents and medical students, including in my role as Core Faculty. This includes lectures and participation in EM conferences, journal clubs, and participation in the resident evaluation and mentorship process.