JEREMY C. HOLTGRAVE, PhD

Associate Professor of Physics
Central State University
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Education:

• Air Force Institute of Technology	Physics	PhD	2003
• Air Force Institute of Technology	Engineering Physics	MS	1992
• University of Illinois at Urbana-Champaign	Physics	BS	1990

Professional History:

- Associate Professor of Physics
  Central State University, Wilberforce Ohio — August 2012 – Present
- Assistant Professor of Physics
  Air Force Institute of Technology, Wright-Patterson AFB Ohio — April 2012 – July 2012
- Deputy Head, Department of Engineering Physics and Assistant Professor of Physics
  Air Force Institute of Technology, Wright-Patterson AFB Ohio — October 2007 – March 2012
- Adjunct Faculty Member for Physical Sciences
  Marymount University, Arlington Virginia — October 2004 – December 2006

Teaching (Central State University):

• Fall 2023	Physics 2411: University Physics I w/Lab	5 cr hrs	12 stu
	Physics 2412: University Physics II w/Lab	5 cr hrs	4 stu
• Spring 2023	Physics 2411: University Physics I w/Lab	5 cr hrs	2 stu
	Physics 2412: University Physics II w/Lab	5 cr hrs	16 stu
	Physics 1183: Introductory Astronomy	2 cr hrs	6 stu
• Fall 2022	Physics 2411: University Physics I w/Lab	5 cr hrs	10 stu
	Physics 2412: University Physics II w/Lab	5 cr hrs	8 stu
• Spring 2022	Physics 2411: University Physics I w/Lab	5 cr hrs	19 stu
	Physics 2412: University Physics II w/Lab	5 cr hrs	23 stu
• Fall 2021	Physics 2411: University Physics I w/Lab	5 cr hrs	22 stu
	Physics 2412: University Physics II w/Lab	5 cr hrs	9 stu
• Spring 2021	Physics 2411: University Physics I w/Lab	5 cr hrs	18 stu
	Physics 2412: University Physics II w/Lab	5 cr hrs	22 stu
• Fall 2020	Physics 2411: University Physics I w/Lab	5 cr hrs	21 stu
	Physics 1120: Physical Science	3 cr hrs	53 stu
• Spring 2020	Physics 2412: University Physics II w/Lab	5 cr hrs	33 stu
	Physics 1120: Physical Science	3 cr hrs	30 stu
• Fall 2019	Physics 2411: University Physics I w/Lab	5 cr hrs	35 stu
	Physics 1120: Physical Science	3 cr hrs	30 stu
• Spring 2019	Physics 2412: University Physics II w/Lab	5 cr hrs	28 stu
	Physics 1120: Physical Science	3 cr hrs	29 stu
• Fall 2018	Physics 2411: University Physics I w/Lab	5 cr hrs	31 stu
	Physics 1120: Physical Science	3 cr hrs	49 stu
• Spring 2018	Physics 2412: University Physics II w/Lab	5 cr hrs	34 stu
	Physics 1120: Physical Science	3 cr hrs	27 stu
• Fall 2017	Physics 2411: University Physics I w/Lab	5 cr hrs	40 stu
• Spring 2017	Physics 2412: UniversityPhysics II w/Lab	5 cr hrs	32 stu
• Fall 2016	Physics 2411: University Physics I w/Lab	5 cr hrs	36 stu
• Spring 2016	Physics 2213/2214: University Physics II w/Lab	5 cr hrs	34 stu
• Fall 2015	Physics 2211/2212: University Physics I w/Lab	5 cr hrs	32 stu
• Spring 2015	Physics 2213/2214: University Physics II w/Lab	5 cr hrs	22 stu
	Physics 1182: Basic Physics II w/Lab	4 cr hrs	9 stu
• Fall 2014	Physics 2211/2212: University Physics I w/Lab	5 cr hrs	28 stu
• Spring 2014	Physics 2213/2214: University Physics II w/Lab	5 cr hrs	21 stu
	Physics 1110/1120: Physical Science	3 cr hrs	23 stu

• Fall 2013	Physics 2211/2212: University Physics I w/Lab	5 cr hrs	30 stu
	Physics 1110: Physical Science	3 cr hrs	20 stu
• Spring 2013	Physics 2213/2214: University Physics II w/Lab	5 cr hrs	37 stu
	Physics 1110/1120: Physical Science	3 cr hrs	45 stu
• Fall 2012	Physics 2211/2212: University Physics I w/Lab	5 cr hrs	41 stu

Teaching (Air Force Institute of Technology):

• Spring 2012	Physics 600: Dynamics	4 cr hrs	3 stu
• Summer 2011	Physics 519 DL: Intro. to Space Env.	4 cr hrs	18 stu
• Spring 2011	Physics 600: Dynamics	4 cr hrs	2 stu
• Summer 2010	Physics 519 DL: Intro. to Space Env.	4 cr hrs	23 stu
• Spring 2010	Physics 600: Dynamics	4 cr hrs	3 stu
• Fall 2009	Physics 640: Optics	4 cr hrs	22 stu
• Spring 2009	Physics 600: Dynamics	4 cr hrs	9 stu
• Fall 2008	Physics 640: Optics	4 cr hrs	28 stu
• Spring 2008	Physics 600: Dynamics	4 cr hrs	4 stu
• Each quarter Winter 2008 to Summer 2011	Physics 798: Dept Seminar	1 cr hrs	~40-80 stu

Teaching (Marymount University):

• Fall 2006	Chemistry 151L: Principles of Chemistry I Lab	4 cr hrs	17 stu
• Fall 2005	Chemistry 151L: Principles of Chemistry I Lab	4 cr hrs	18 stu
• Fall 2004	Chemistry 151L: Principles of Chemistry I Lab	4 cr hrs	15 stu

Service (Central State University):

- Department of Agricultural and Life Sciences, Chief Academic Advisor — January 2019 - Present
- University Senate Committee on Committees, Chair — August 2022 – July 2023; August 2019 – July 2020; August 2013 – July 2014
- University Senate Committee on Committees, Member — August 2023 - Present; August 2020 – July 2021; August 2014 – July 2017; August 2012 – July 2013
- University Senate Committee on General Education – Writing Across the Curriculum, Member — August 2019 – July 2021
- University Senate Committee on Intercollegiate Athletics, Member — August 2017 – July 2019
- College of Science and Engineering Faculty Handbook Committee, Member — August 2014 – July 2017
- College of Science and Engineering Student Appeals Committee, Member — August 2012 – July 2014

Peer-Reviewed Publications:

- E.J. Hurd, J.C. Holtgrave and G.P. Perram, "Intensity Scaling of an Optically Pumped Potassium Laser," *Optics Communications*, 357: 63-66 (December 2015)
- K.C. Brown, E.J. Hurd, J.C. Holtgrave and G.P. Perram, "Stimulated Electron Raman and Hyper-Raman Scattering in a Potassium Vapor," *Optics Communications*, 309: 21-25 (July 2013)
- W.S. Miller, C.V. Sulham, J.C. Holtgrave and G.P. Perram, "Limitations of an Optically Pumped Rubidium Laser Imposed by Atom Recycle Rate," *Applied Physics B: Lasers and Optics,* **103**: 819-824 (June 2011)
- J.C. Holtgrave and P.J. Wolf, "Pressure Broadening and Line Shifting of Atomic Strontium $5s^2\ {}^1S_0 \rightarrow 5s5p\ {}^3P_1$ and $5s5p\ {}^3P_{0,1,2} \rightarrow 5s6s\ {}^3S_1$ Absorption Transitions Induced by Noble-Gas Collisions," *Physical Review A*, **72**: 012711 (July 2005)
- J.C. Holtgrave, K.B. Riehl, D.M. Abner and P.D. Haaland, "Ion Chemistry in Tetraethylorthosilicate $(C_2H_5O)_4Si$," *Chemical Physics Letters*, 215: 548-553 (December 1993)

Fellowships:

- Summer 2014: Selected for Air Force Summer Faculty Fellowship Program sponsored by the Air Force Office of Scientific Research. Completed 8-week fellowship at the Air Force Institute of Technology in collaboration with Dr. Glen Perram researching ways to produce a rubidium vapor whose number density is independent of temperature in support of Department of Defense high energy laser initiatives.

Professional Organizations:

- Member of the American Physical Society since October 2015