

Charles C. Allen

Education

1997	graduate	Software Project Management, Software Quality Institute, UT Austin
1991	Ph.D.	High Energy Nuclear Physics, Purdue University
1981	M.S.	Physics, University of Illinois at Urbana-Champaign
1980	Sc.B.	Physics, Brown University

Teaching Experience

2015–	Professor of Physics, Angelo State University
2009–2015	Associate Professor of Physics, Angelo State University
2002–2009	Assistant Professor of Physics, Angelo State University
2001–2002	Visiting Assistant Professor of Physics, Trinity University

Relevant Research and Presentations

2009	ASU Faculty Development and Enrichment Grant (with Dr. David Bixler), “Combined Lecture-Lab-Simulation Electronics Classroom”
2007	Charles C. Allen, “Fundamentals of Radiation”, South Texas Chapter of the Health Physics Society, STC-HPS Science Teacher Workshop, College Station, Texas
2006	ASU Research Enrichment Grant (with Dr. Christian Poppeliers), “A Portable Parallel Computing Cluster for Student Research and Recruitment”
2004	ASU Technology Development Grant, “Integration of a Symbolic Answer Online Homework System”

Relevant Publications

Charles Allen, *Physics 1101 Lab Manual*, Angelo State University, 2007, revised annually.
Charles Allen, *Physics 1102 Lab Manual*, Angelo State University, 2011, revised annually.
Charles Allen, *Physics 2125 Lab Manual*, Angelo State University, 2012, revised annually.
Charles Allen, *Physics 2126 Lab Manual*, Angelo State University, 2013, revised annually.
Charles Allen, *Physics 3444 Lab Manual*, Angelo State University, 2008, revised annually.

Professional Affiliations

American Association of Physics Teachers (AAPT)
American Physical Society (APS)
Institute of Electrical and Electronics Engineers (IEEE)

Courses Taught

CS-1301	Computer Literacy ¹
PHYS-1101/1102	General Physics 1 and 2 Lab ²
PHYS-1103	Stellar Astronomy Lab
PHYS-1181/1281	Freshman Seminar ¹
PHYS-1301/1302	General Physics 1 and 2
PHYS-1304	Solar System Astronomy
PHYS-2125/2126	Fundamentals of Physics 1 and 2 Lab ²
PHYS-2325	Fundamentals of Physics 1
PHYS-3303	Dynamics ¹
PHYS-3310	Computational Physics ³
PHYS-3331	Mechanics
PHYS-3341	Electricity and Magnetism (equivalent at Trinity)
PHYS-3443	Electronic Instruments
PHYS-3444	Digital Electronics ^{2,4}
PHYS-3461	Modern Physics
PHYS-4364	Advanced Physics, capstone course ¹
PHYS-4462	Nuclear Physics ⁴
PS-1317	Introduction to Physical Science 2
PS-1115/1117	Introduction to Physical Science 1 and 2 Lab
PS-3311/3312	Advanced Physical Science 1 and 2

1 no longer offered

2 lab manual author and editor

3 new course

4 major curriculum changes made

Teaching Interests

Promoting Computational Methods

Traditional analytic and experimental techniques form the basis for most undergraduate physics courses. Computational methods are increasingly important and available at levels appropriate for both introductory and advanced undergraduate physics. Students should be shown that all three techniques (analytic, experimental, and computational) can be successfully used to do research in physics.

Experimental Physics and Scientific Writing

Most students who take an advanced physics lab course will be expected to write research papers and give presentations at some point in their career. Experimental physics courses offer not only an opportunity for teaching experimental techniques, but also an opportunity for teaching skills in technical writing.

Critical Thinking and the Scientific Method

Through reports in the media and personal experience, I am convinced that more attention needs to be paid to providing comprehensible information about pseudoscientific topics, and to preparing people to provide and discuss such information themselves.