TABLE 1

Newspaper Physics core elements.

Elements	Brief descriptions
Course name	Newspaper Physics
Credits	A total of 6 credit hours (3 credit hours for English 250 and 3 credit hours for Physics 290)
Instructors	An instructor from the English department and an instructor from the physics department
Class meeting days	English 250 meets on Monday, Wednesday, and Friday. Physics 290 meets on Tuesday and Thursday.
Required texts	• *They Say/I Say With Readings* (2nd ed.), by Gerald Graff, Cathy Birkenstein, and Russel Durst • *The Artist's Way*, by Julia Cameron • *A Pocket Style Manual* (6th ed.), by Diana Hacker and Nancy Sommers • ISU Student Guide English 150 and 250 (a departmental packet on basic English writing skills expected of all university students) • *Six Easy Pieces*, by Richard Feynman
Book club books	• *The Hunger Games*, by Suzanne Collins • *Ender's Game*, by Orson Scott Card • *Good Omens*, by Neil Gaiman and Terry Pratchett • *Feynman*, by Jim Ottaviani and Leland Myrick (graphic novel)
Participation requirements	• Come to class prepared and participate. • Do the assigned readings. • Complete all major assignments.
Course objectives	• The objective of Newspaper Physics is to teach physics and argumentation. Newspaper Physics is specifically designed to help you learn how to think and write about physics and how to analyze and construct argumentative writing.
Course outcomes	The academic goals were to • summarize and rhetorically analyze written and visual texts; • target an audience according to the writing purpose and situation; • practice effective writing processes (planning, drafting, revising); • learn enough about physics to be able to discuss, question, and write about it; • conduct effective scientific interviews of physicists; • document sources using in-text citations; • present scientific material orally and visually and answer questions; • apply the principles of design to craft effective documents; • independently evaluate your writing concerning content and form to produce effective and error-free writing; and • understand and incorporate ethical practices in your writing.
Major in-class, out-of-class, and off-campus activities	• A biographical piece called "Thinking About My Major" • Introduction to journals and book club • Interview of an ISU physicist, written up as a newspaper article (can be sent to local or student newspaper) • Op-ed and cover letter (can be sent to a local or state newspaper) • Interview of Fermilab physicist, on an overnight trip to Fermilab (Batavia, IL) • *Artist's Way* journal and book club (meets once per week) • Physics journal (writings in a private journal on the physics presentations) • Portfolio (demonstrating physics savvy, participation, and group spirit)
Community dinner	• Cook dinner together (e.g., salad, pasta)

TABLE 2

Three vignettes, extracted stories, physics concepts, and concept applications.

Three vignettes (Newspaper articles)	Extracted stories	Core physics concepts	Concept applications
"Teen Thrown in Air Holds on to Wires"	Jeep accident story	• Kinetic energy • Torque • Conservation of energy • Conservation of angular momentum • Gravitational potential energy	• Accident forensics • Moving car • Survivor stories
"Thousands Die as Quake-Spawned Waves Crash Onto Coastlines Across South Asia"	Christmas tsunami story	• Water wave velocity and propagation • Gravitational potential energy • Energy conservation in waves • Wave refraction and diffraction • Single-slit diffraction	• All waves (light, sound, TV, radio, quantum waves, etc.) • Energy in tectonic plates and waves
"7 Go on Trial Over Quake"	L'Aquila earthquake story	• Statistical fluctuations • Engineering • Geology • Earthquake waves	• Experts, fluctuations, and the law • Prediction of random events • Evacuations