Annotated Bibliography


Describes the use of a portfolio project in an undergraduate chemistry class. Students who choose to do so create portfolios that demonstrate their learning in the course.


Describes the use of a “journal-quality” research paper in an upper-level undergraduate independent research course.


Describes a case-study approach to using a primary research article in an undergraduate ecology course at Carleton College. Includes several tips for using primary literature in undergraduate classes.


Describes the introduction of library-skills lessons into the biology program at the University of Colorado.


Outlines advantages and disadvantages of using cooperative learning activities in large classes and describes ways to prepare for cooperative learning activities.

Describes the use of a journal article as a case study in an introductory biochemistry course at Providence College.


Describes an Animal Behavior class at Westfield State College in which students conduct a research project that entails writing a scientific research proposal, conducting experiments, and presenting the results in a scientific paper.


Describes the use of a term paper (often a biography) in a course about the history of physical chemistry.


Describes the writing component of a course designed to teach students how to find and use scientific information. Discusses problems encountered in students’ writing and provides examples of exercises.


Describes the use of a jigsaw learning technique in an undergraduate environmental communication class.


Describes the implementation of a non-credit writing project in which senior biology majors at LaSalle University research and write a 20-25 page review article and, the following semester, adapt that article into a shorter non-technical article.


Analyzes the most frequent collocations in a corpus of pharmaceutical research articles and proposes possible functions for these collocations.

Describes the University of Southern Maine’s chemistry curriculum, which includes a series of progressive writing and computer requirements across the curriculum.


Describes an alternative structure for a molecular biology lab course that models the type of structure encountered in professional labs. The course requires a team of students to write a grant proposal, poster presentation, and journal article.


Describes the use of a collaborative writing assignment in an undergraduate biochemistry class.


Briefly describes how primary research is used in a molecular genetics course.


Suggests some ways to improve science students’ reading and writing.


Describes the use of in-class symposia in an undergraduate biology class to increase students’ abilities to comprehend primary literature and give students a general understanding of research.

Describes a class in which a biology professor and an English professor team-teach the writing of a literature review.


Analyzes the function of self-citation and exclusive first person pronouns in 240 research articles.


Describes a molecular biology course that incorporates the discussion of primary research by conducting class in a seminar-style format. Students read primary research, write reports on the articles that they read, then discuss them in class.


Describes the use of peer review in a junior/senior-level general ecology course.


Reports on a study of the ability of 14-15 year old students to understand and interpret graphs. Notes that results of research are often shown in graphical form and that students need to be able to understand these forms. Recommends discussing graphs more frequently with students and introducing strategies for understanding graphs.


Analyzes the collocational frameworks, such as *the*...*of* and *be*...*to*, in a corpus of medical research articles and describes the collocates that fill these frameworks.


Describes the Towson Transition Course, a course offered to freshman science majors to transition them into the college environment. The course focuses on problem solving (through the analysis and critique of research and the graphing and interpretation of data), information gathering (reading, interpreting, and
evaluating sources), and ethics. The course makes extensive use of group work and peer mentoring.


Examines the use of linguistic devices for impersonality in different sections of research papers.


Examines the effect of class size on at-risk chemistry students.


Describes the creation of *Scientia*, an on-line journal of undergraduate research at Middle Tennessee State University.


Describes a writing assignment in an undergraduate geology course in which students write 250-350 word abstracts that are later synthesized into a larger report.


Describes an upper-level writing course for chemistry majors in which the students write a 5-10 page review paper.


Describes a course in scientific writing for students in all the science disciplines. Includes lists of the types of skills students need to be successful science writers, describes the writing assignments that students complete (a scientific narrative, a description, an explanation, an argumentative paper, and a write-up of laboratory work), and gives examples of classroom activities and grading standards.

Analyzes the visuals used in 90 papers presented at conferences in geology, medicine, and physics.


Analyzes the introductions of research articles in the fields of Wildlife Behavior and Conservation Biology, using Swales’ (1990) Create-A-Research-Space (CARS) model and proposes a modified version of the CARS model.


Describes the use of research papers in organic chemistry courses at Penn State Berks-Lehigh Valley College. Students conduct library research and write a synthesis paper about their research.


Examines the frequency and functions of adjectives in five biochemistry research articles.


Describes an investigative laboratory course in biology in which a writing consultant (a graduate student in Literature) was hired to give lectures and prepare handouts on writing and to review student papers before final drafts were turned in to biology faculty.


Describes a class in which on-line peer review is used to improve the quality of students’ writing about physical chemistry.

Describes a laboratory activity in which students propose their own quantitative experiments, conduct the experiments, and summarize them in a scientific article and a press release.