

History 329U
Perspectives on Science and Mathematics
Prof. A.J. Lustig
5E lesson plan guidelines
NEXT ITERATION

Students will work in pairs on this assignment. The 5E lesson plan should do one or both of two things:

- Integrate a historical perspective into a science, math, or technology lesson;

and/or

- Be a history of science or history of math lesson that would either motivate science or math students to understand their subject better, or help to clarify the context or framework of a technique or theory.

You will teach your lesson to the Perspectives class, in one 40-45 minute period, with 5-10 minutes for discussion and feedback. If your lesson plan is longer than 45 minutes, you will teach a 40 to 45 minute excerpt. The subject of the 5E will be determined by each team in consultation with me. Be sure to come to office hours or make an appointment in plenty of time, **at least two weeks** before you are scheduled to teach your 5E in class.

The lesson plan must include the following components:

- A substantially original lesson. While you may integrate ideas, activities, or components from pre-existing lesson plans from UTeach or elsewhere (which must be appropriately cited in the bibliography), the lesson as a whole must be conceptually original to you.
- An overview of the lesson, including a specification of the intended course and grade level.
- The TEKS being addressed (note that there exist social-studies TEKS for Science, Technology, and Society and for history, which may be appropriate in addition to the science, math, or technology guidelines).
- A bibliography containing the sources used to prepare the lesson. These *must* contain (but are not limited to) secondary print sources in history (books or journal articles; these may be accessed online) and may *not* contain “history of science” found in science textbooks or the equivalent, which is usually incomplete and biased (at best) or wrong (at worst). You should be prepared to explain the provenance and reliability of all sources you use.
- An itemized breakdown of work contributed by each partner.

On the day you teach your lesson in class:

- Bring extra copies of your 5E to class on the day you teach, for me, for the course TA and intern, and for any master teachers who may attend. If the lesson is designed for more than 45 minutes, indicate which part(s) will be presented in class.
- Post a copy of the 5E to Blackboard for all students and course staff to refer to. All students will receive in class a form for feedback on the presentation and the written 5E, to be filled out and returned to the presenters at the start of the next class period. Providing this feedback will be considered part of class participation.

The final version of the 5E is due one week after the in-class presentation. On that day:

- Post your final, revised 5E to the Blackboard [OR OPEN UTEACH] 5E archive;

and turn in to me:

- A hard copy of the revised 5E, including any supporting materials (e.g., worksheets, powerpoints, presentation materials, directions for constructing activity materials, etc.);
- The originals or photocopies of the student feedback forms;
- A one-page reflection discussing problems, issues, and insights arising during the composition, presentation, or revision of the lesson.

Grading criteria include:

- Content, structure, originality, and pedagogic effectiveness of the lesson;
- Teamwork;
- Effectiveness of the in-class presentation;
- Degree of revision, as necessary;
- Grammar, spelling, and syntax. The 5E counts as one of the writing components of the course.

Other considerations:

- Assume that your lesson plan will actually be taught in a particular middle or high school course. It should serve to demonstrate mastery of component 1c of the UTeach Teacher Development Rubric in your UTeach portfolio.
- The historical component of the lesson will be considered part of the course content, and may be included on quizzes or referred to in other course activities and assignments. You will be responsible for the accuracy of the lesson's content, and for correcting any errors that you subsequently find or that are brought to your attention to the class in a timely fashion. [NOTE— THIS WILL ONLY WORK IF DOUBLING-UP OF PRESENTATIONS IS NOT REQUIRED]