

Course Transformation Academy

COURSE REDESIGN PLAN

Course # and Title: EPSY 302 Introduction to Applied Psychological Statistics

Team Leader: Chris MacDonald

1. Describe the problems or challenges you are trying to solve with course redesign.

- increase student learning in the course – due the cumulative nature of the material, students who struggle early will have difficulty being successful in the course
- decrease the DWF rate
- decrease the costs associated with the course – or at least not increase them
- maintain a high standard of academic integrity and rigor in the course – we don't need to “dumb down” the curriculum so that more students pass
- not increase instructor workload.

2. Describe the strategies you are using to address the course's problems/challenges.

- Students will, in the first week, take a math pretest to ensure basic algebra skills. They will need to be able to do basic things like work with fractions, deal with negative numbers to be successful in the course. There will be links in this pretest to allow them to get help, review text, or see an example so they can refresh their skills if necessary. This is a mastery level task, since they can't really start the calculations in chapter 2 without these skills.
- For each chapter, students will take the pretest (in MyStatLab), and need to achieve a C (73%) on it to be able to complete the homework assignment for the chapter. They will be able to take the pretest multiple times in order to enable their mastery of this content. The pretests will count toward their grade, but they will have the opportunity to take them as many times as they want, so this should be low-stakes testing. I have found with the textbook quizzes that they can retake, that most students take them until they get perfect scores.
- Weekly homework assignments will also be through MyStatLab. I should also note that for the homework, students will be able to access all of the learning resources that the software provides – get help, review text, see an example, ask me questions...
- Exams will be exclusively in a take home format, so that students will have the chance show that they can work out problems by hand, and explain concepts in their own words. It appears that there is a limited pool of questions for each chapter within MyStatLab, a subset of which (somewhat overlapping) are in the pretest, posttest and homework assignments, so I believe it is good for students to get

different questions on their exams. In addition, these MyStatLab questions don't allow students, for example, to actually draw a graph, or to write an explanation of a concept in their own words or to write up their results. And while the final project will get them to do some of these, it shouldn't be the only place they have to demonstrate these skills.

- Students will also complete a project for the course that demonstrates their ability to synthesize the course material. They will do so based on data collected through an anonymous class survey in the first week or two of class. Each student will be expected to come up with their own research questions and hypotheses, and choose, compute, interpret, and report appropriate statistics to answer their questions. Class projects will be individual and unique, which should allow me to have at least one assignment that is relatively proof against violations of academic integrity. For the project, I will be creating the database for the students, so they don't have to find one (that would be much to ask of undergraduate students). There are several steps toward the final project including: 1) formulate research questions, 2) graph the data and calculate descriptive statistics, 3) choose appropriate inferential statistics, 4) calculate inferential statistics and write them up, and 5) writing up and submitting the whole project in APA style.

3. Describe what NCAT model your course redesign approach is most consistent with and why.

Online -- While the course is also taught face to face, we are mostly interested in transforming the online sections at this time.

4. Describe your assessment plan below and complete the Assessment Plan (Excel file).

- DWF rate -- will compare current online section to a five year average (Fall 2010-Spring 2015)
- Final course averages -- will compare current online section to a five year average (Fall 2010-Spring 2015)
- Grades on parallel Final Exams will compare current online section to a five year average (Fall 2010-Spring 2015)

Unfortunately, we have a very low enrollment rate this semester, despite reaching out to Nursing, so we will also make these comparisons the next time the online course is taught.

While we would like to be able to assess student learning in a more authentic way (examining success in other courses/activities that require statistical knowledge), since the students who take this course are enrolled in programs outside of our college, we don't have the ability to do so.