Writing a syllabus

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Sta 771S - Teaching Statistics

A comprehensive syllabus

What is a comprehensive syllabus

A comprehensive syllabus:

- Sets the tone for the course.
- Communicates what, when, and how students will learn.
- Makes clear to students what they need to do in order to be successful.
- Communicates expectations in terms of student responsibilities.
- Deters misunderstandings about course policies.

Source: `http://www.cte.cornell.edu/teaching-ideas/designing-your-course/writing-a-syllabus.html`

Components of a syllabus

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1. Title page
2. Course description
3. Course learning objectives
4. Course organization/logistics/format
5. Course requirements
6. Evaluation and grading policy
7. Course policies and expectations
8. Course calendar
9. Tips for success

Title page

- Course number and title
- Semester and year
- Number of units
- Meeting times and location
- Instructor and TA information (e.g., name, office, office hours, contact information)
- Pre-requisites and/or co-requisites
- Required materials (e.g. textbook(s), technology)
- Exam dates
- Holidays

Course description

- A brief introduction to the course: scope and purpose
- You can probably just use the official course description

Course learning objectives

- Itemized list of overall learning objectives for the course
- Should be written using Bloom's taxonomy

Lower order thinking skills			*Higher order thinking skills*			
Remember	**Understand**		**Apply**	**Analyze**	**Evaluate**	**Create**
recognizing (identifying)	interpreting (clarifying, paraphrasing, representing, translating)	inferring (concluding, extrapolating, interpolating, predicting)	executing (carrying out)	differentiating (discriminating, distinguishing, focusing, selecting)	checking (coordinating, detecting, monitoring, testing)	generating (hypothesizing)
recalling (retrieving)	exemplifying (illustrating, instantiating)	comparing (contrasting, mapping, matching)	implementing (using)	organizing (finding, coherence, integrating, outlining, parsing, structuring)	critiquing (judging)	planning (designing)
	classifying (categorizing, subsuming)	explaining (constructing models)		attributing (deconstructing)		producing (construct)
	summarizing (abstracting, generalizing)					

Source:
`http://www.celt.iastate.edu/teaching/effective-teaching-practices/revised-blooms-taxonomy`

Sample course learning objectives: STA 101

- *Recognize the importance of data collection, identify limitations in data collection methods, and determine how they affect the scope of inference.*
- *Use statistical software to summarize data numerically and visually, and to perform data analysis.*
- *Have a conceptual understanding of the unified nature of statistical inference.*
- *Apply estimation and testing methods to analyze single variables or the relationship between two variables in order to understand natural phenomena and make data-based decisions.*
- *Model numerical response variables using a single or multiple explanatory variables.*
- *Interpret results correctly, effectively, and in context without relying on statistical jargon.*
- *Critique data-based claims and evaluate data-based decisions.*
- *Complete a research project demonstrating mastery of statistical data analysis from exploratory analysis to inference to modeling.*

Course organization/logistics/format

- Describe the pedagogy
- Outline what a week / unit looks like for students

Sample course format: Sta 101

- *The course is divided into seven learning units.*
- *For each unit a set of learning objectives and required and suggested readings, videos, etc. will be posted on the course website.*
- *You are expected to watch the videos and/or complete the readings and familiarize yourselves with the learning objectives.*
- *We will begin the unit with a readiness assessment: 10 multiple choice questions that you answer using your clickers in class. You will then re-take this assessment in teams.*
- *The rest of the class time will be split between discussion of the material and application exercises that youll complete in teams.*
- *Slides and other relevant materials for each class and lab will be available on the schedule page before each class.*
- *Videos and other relevant prep materials for each unit are also available on that page.*
- *Within each unit you will complement your learning with problem sets and labs, and wrap up each unit with a performance assessment.*

Course requirements

- What students will have to do in the course: assignments, exams, projects, performances, attendance, participation, etc.
- Describe the nature and format of each assignment and assessment and the expected length of written work.
- Provide due dates for assignments and dates for exams.

Course requirements

- You must outline percentage distribution of graded work.
- You might also want to say something about how final grades will be determined, e.g. curved or on a strict scale.
    - Sample: *Grades may be curved at the end of the semester. Cumulative numerical averages of 90 - 100 are guaranteed at least an A-, 80 - 89 at least a B-, and 70 - 79 at least a C-, however the exact ranges for letter grades will be determined after the final exam. The more evidence there is that the class has mastered the material, the more generous the curve will be.*
- You should include instructions for accommodations for students with disabilities. There is likely official university language you can use for this.

Course policies and expectations

- A note on academic dishonesty must be included in your syllabus, you should use standard language that applies to your institution.
    - Outline what the penalty might be for an academic dishonesty infraction.
    - Sample: *Such incidences will result in a 0 grade for all parties involved as well as being reported to the Office of Student Conduct. Additionally, there may be penalties to your final class grade.*
- Policy on absences, make up assignments and assessments must also be outlined.
    - Tip: Stay clear of offering make up midterm exams, instead for excused absences plug in the final exam grade for the midterm. If a student cannot take the final exam on the scheduled date, they should drop the course.

Course policies and expectations (cont.)

- If you will be honoring regrade requests (this is recommended especially if multiple TAs are grading the work), outline a policy for regrades.
    - Sample: *Regrade requests must be made within one week of when the assignment is returned, and must be submitted in writing. These will be honored if points were tallied incorrectly, or if you feel your answer is correct but it was marked wrong. No regrade will be made to alter the number of points deducted for a mistake. There will be no grade changes after the final exam.*

Course calendar

- Provide a tentative schedule of topics to be covered.
- List exact due dates for assignments (and do not move them up, though unforeseen circumstances might require that you delay them) and for exams (barring school closings do not ever move these).
- Note that your final exam date and time is likely determined by the university, not you. Find out where to get that information.

Tips for success

- Provide an itemized list of tips for success for your students.
- These should be what you would tell a student if they came to your office asking "How do you recommend I study for this course to do better?"

Introducing your syllabus in class

Syllabus = contract

- A syllabus is a like a contract for the course
- When you hand it out to your students you agree to stick to it throughout the semester
- And students, by staying in your course, agree to abide by the policies and expectations

First day of class

- It's a good idea to review the syllabus, however this can get tedious and boring for students
- Try to keep this short
- Consider a syllabus quiz