
PREPARING AN EFFECTIVE SYLLABUS

CURRENT BEST PRACTICES

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Abstract. Syllabi can be useful in engaging students and creating an effective classroom atmosphere, yet discussions of their effective use rarely appear. In light of current research and theory on syllabi, we review their typical uses (structural, motivational, and evidentiary), commonly included components, and attributes that positively impact the teaching and learning process.

Most, if not all, colleges require faculty to share syllabi with their students. Although doing so is often an administrative requirement, seeing it as only that underestimates the importance of syllabi. A strong syllabus facilitates teaching and learning. It communicates the overall pattern of the course so a course does not feel like disjointed assignments and activities, but instead an organized and meaningful journey. In particular, a good syllabus clarifies the relationship between goals and assignments. Students who read a good syllabus are more likely to feel that course strategies have been designed to help them reach their goals, rather than merely as

busywork or, worse, to torture them (Littlefield 1999a).

Syllabi are a ubiquitous part of the teaching process, making the scarcity of research or scholarship pertaining to them surprising. These realities gave rise to the current article, which attempts to use the relatively small existing base of research and writing on syllabi, as well as anecdotal material to describe the best current practices in writing syllabi.

Functions of Syllabi

Littlefield (1999a) suggested that a syllabus serves seven purposes. It sets the tone for a course, motivates students to set lofty but achievable goals, serves as a planning tool for faculty, structures students' work over the course of the semester, helps faculty plan and meet course goals in a timely manner, serves as a contract between faculty and students about what students can expect from faculty

and vice versa, and is a portfolio artifact for tenure, promotion, or job applications. We understand these seven discrete objectives in terms of their relationship to three overarching goals met by a strong syllabus: motivational, structural, and evidentiary. We discuss these three major goals in greater detail below.

Motivational Aspects

Students usually receive the course syllabus at the first class meeting. Both the syllabus and discussion of the syllabus and course help set the tone for the class (Appleby 1999; Littlefield 1999a; Office of Teaching Effectiveness and Faculty Development 1999). In introducing the syllabus, we must counter ingrained beliefs "that [students] are powerless to affect what happens to them; that hard work will not pay off; that success is due to luck, and failure is due to circumstances beyond their control" (Walvoord and Anderson 1998, 16).

Syllabi differ widely in the tone they adopt: warm and friendly, formal, condescending, or confrontational. Warm syllabi explain expectations in a clear and friendly fashion, encourage and motivate students, and anticipate positive student outcomes, rather than merely attempting to prevent problems. They are associated with positive student outcomes. Littlefield (1999a) reported that people reading a syllabus as though they were students remembered the information on warm syllabi better than that on less student-friendly syllabi. Pre-

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sumably this is because students see themselves as active participants rather than passive recipients in the learning process when reading warm syllabi and believe that their behavior will impact the course and their grades. Students who read less friendly syllabi may believe that their professor does not expect them to be successful, which can create a self-fulfilling prophecy. When formal statements imbue a sense of mistrust, it follows that student retention at the university will be negatively impacted (Collins 1997; Tinto 1993).

Collins (1997), a first-generation college student, described a different, albeit related purpose to the tone-setting aspect of a syllabus. He emphasized the practical and ethical importance of writing a syllabus that is inclusive and accessible to all students, particularly to students from groups that have been historically underrepresented in higher education. By making the implicit explicit and communicating that we believe that students can and will succeed, faculty begin to level the playing field and ensure that all students have equal opportunities in the classroom. Many of the examples described below accomplish this objective.

Structure

A good syllabus creates an effective structure for both faculty and students, allowing all parties to recognize where they need to go and what they need to do to get there. Dates for papers, examinations, readings, and other assignments, as well as weights for these assignments, help faculty stay on schedule throughout the semester, while also helping students identify what they need to do to earn a particular grade.

Students often depend on a syllabus to manage their time effectively. Many students report feeling overextended between school, work, and family demands, and they use a syllabus to determine how to allocate their limited time. Furthermore, students' allocation of time to a class often closely matches perceived reinforcements for their time on task, with less time given to a quiz than a test, more for a formal paper than a reaction paper. Students who cannot predict or influence their professor's expectations and behavior may give up and display typical signs of learned

helplessness. Similarly, when faculty shift deadlines frequently, students may become frustrated by their inability to plan writing and studying time. As Mann and his colleagues (1970, cited in McKeachie 1994) conclude, what may initially have been a professor's attempt to be responsive to class needs may ultimately undermine class morale.

A good course and syllabus need not be rigid in providing this structure, but should be flexibly responsive to student concerns and external events, such as the Columbine massacre and the terrorist attacks on New York City and Washington, DC. Responsiveness, however, is not the same as an absence of structure (McKeachie 1994). Faculty can provide structure for their students' experiences and be sensitive to individual and group needs to know where they are and where they are going. We believe an effective class often teaches process goals rather than only content, generally building on these either within or across courses (Walvoord and Anderson 1998). We believe that the strongest syllabi and courses have assignments that are clearly related to process objectives and that clearly help students meet these goals.

Finally, although we have talked about the purpose of a syllabus from a student's point of view, syllabi are probably equally important for faculty, as they help us to develop and organize our vision for the course (Appleby 1999). A well-designed syllabus is both a consequence and a precursor of a strongly articulated teaching philosophy (Office of Teaching Effectiveness and Faculty Development 1999).

Evidentiary Function

Whether or not we mean for it to serve this purpose, a syllabus often serves as a contract between faculty and students. Brosman (1998) dates the contractual aspect of the syllabus to the 1970s, when students first began to challenge expectations that were not described in course syllabi. Policies that are clearly outlined in a syllabus can help avert lawsuits. Accordingly, some schools, such as Georgia Southern University, make this contract explicit, and ask students to sign that they read the syllabus and agree to its terms (M. Nielsen, personal communication, Sep-

tember 19, 2001). When attempting to resolve disputes, administrators often consult the syllabus to determine whether the faculty member followed the rules that both professor and student "agreed to" in the course (S. Johnson, personal communication, October 2, 2001).

In addition, a well-done syllabus effectively communicates the nature and quality of a faculty member's teaching philosophy and abilities to tenure and promotion committees or search committees at other universities (Appleby 1999). Syllabi also serve a vital function in accreditation efforts, where accrediting bodies look to syllabi to ascertain what happens in specific courses and then look across syllabi to gauge learning more broadly (such as within a specific discipline or major). This function is an important one, as external bodies often must assess teaching indirectly.

Parts of an Effective Syllabus

Like Gross (1993), we believe that a strong syllabus is relatively detailed. Detailed syllabi educate students about course and university resources and reduce student anxieties. We believe that faculty can prevent misunderstandings and a course can run more smoothly when they provide sufficient detail.

Although syllabi differ widely in style and design, most share certain components. Almost without exception, they describe ways of contacting the professor, course goals and objectives, means for meeting these goals, methods of grading, and a schedule of events, generally in that order. Strong syllabi also include prerequisites for the course, disclaimers, and a bibliography of required readings. In keeping with its motivational function, a syllabus also may include rationales for course objectives and assignments, positive and negative motivational statements, and assistance in identifying university support services.

Identifying Information

Most schools require faculty to be available outside of class. As a result, most syllabi, at a minimum, include office hours and the location of the faculty office. In this electronic age, e-mail addresses and Web pages—if the faculty

member has and uses these—are becoming standard fare. When faculty strongly prefer e-mail to phone calls, sharing this information with students is useful. Syllabi for Web courses should indicate when the faculty member is available for real time online discussions.

Course Description

This section sometimes reiterates the catalog description, but more often provides a thumbnail sketch of how a particular faculty member idiosyncratically approaches a course. Sometimes this section includes an institutional justification for the course (such as “meets the university’s writing requirement”). Quotations also can orient students to a course and excite them about it (see Root 2001; Kuhlenschmidt 2000). Slatery (2003) uses each of these tactics in her “Techniques in Interviewing and Casework” course when she follows opening quotes with:

Your previous psychology classes have looked at the theory behind social problems and how to address them. This class is likely to be the most applied class, other than an internship, that you take in psychology. Rather than only talking about listening, we will practice it. Rather than only discussing a person’s background (in theory), we will begin to assess it in the course of our interviews and write-up of our findings.

This course will be especially useful for three kinds of students: (a) those who plan to go to graduate school in one of the helping fields and want a head start relative to their classmates; (b) those who do not plan to immediately go to graduate school and want some preparation for entry level human services jobs; and (c) those who plan to work outside of the helping fields, but know that listening skills are essential for their personal and professional success.

Course Goals

Having strong course goals is helpful for students; developing them can strengthen a faculty member’s teaching. Before sitting down to teach a course, imagine overhearing graduating seniors discuss your course and how they have changed after taking it (Appleby 2003; Gross 1993). How might you meet these outcomes through your course goals? This section of the syllabus clearly describes goals for students and, in

doing so, helps faculty identify their own goals for teaching.

Angelo and Cross’s (1993) “Teaching Goals Inventory” is a useful assessment of the wide range of teaching goals that can inform a single course (such as develop analytical skills, develop an openness to new ideas, and strengthen speaking skills). Root (2001) includes a comprehensive set of objectives for his “Introduction to Psychology” course and demonstrates how even “content-oriented” courses also teach process skills. He suggests that students will gain various kinds of knowledge (such as of philosophical questions, historical context, terminology, theory, and methodology), and adds that they also will develop stronger critical thinking skills and have fun.

We believe the strongest course goals use action verbs (evaluate, analyze, create) rather than more passive and vague verbs (learn, recognize, understand). Action verbs are especially important when a course has assignments other than multiple choice examinations. The syllabus can encourage students to approach the course and learning in specific ways (Coffman 2003). In particular, by asking students to set goals for the course based on their initial reading of the syllabus and by including discussion or study questions in the syllabus, faculty members encourage students to take ownership of their learning.

Ways to Meet Course Goals

This section of the syllabus describes faculty expectations, including readings, assignments, and means used to assess student progress. Although freshmen may not focus on this section, continuing students see this information as important (Becker and Calhoun 1999), perhaps because they recognize the variety of ways in which faculty assess learning. Faculty should use course objectives to guide the development of assignments that help students meet class goals. When assignments are unrelated to course goals, consider whether the assignment is superfluous or a signal of an unidentified goal. On the other hand, some course goals may not have associated graded assignments (such as improve personal well-being). When this happens, consider whether the goal is an integral but unassessed part of the course or whether it

should be subsumed under another part of the syllabus, such as the description.

Not all faculty clearly describe their assignments in syllabi. In a study of thirty-seven Augsburg College syllabi, Littlefield (1999a) reported that only 50 percent described course projects, 25 percent described papers, and 18 percent described tests. Of course, as the syllabus is not the only way for faculty and students to communicate with each other, it is possible that faculty shared this information in other ways. However, as a syllabus is probably the handout most easily retrieved by students, it should include at least a list of assignments and due dates.

Grades

Littlefield (1999a) reported that most Augsburg College syllabi described how final grades are weighted. Few, however, described the grading criteria and rubrics used to guide the determination of those grades. The more idiosyncratic the grading strategy of the professor, or the more unusual the assignment, the more important the grading rubric. Students writing their first paper for a professor often want to know the relative importance of effectively summarizing the literature, analyzing and critiquing it, creativity, and writing skill (Appleby 2001). Most students have had enough experience to know that faculty differ in their relative emphasis on each of these criteria and that a paper receiving a very positive grade in one course could receive a significantly lower grade in a different course. Tata (1999) suggests that providing and adhering to a grading rubric can prevent students from perceiving grades as unfair.

Two related issues deserve consideration as far as grades: class participation and group work. Students report considerable anxiety when they are asked to do group work. Although there is substantial ecological validity for learning how to work in a group (Astin 1985; Walvoord and Anderson 1998), students often dislike this work, especially when grades are heavily dependent on their groupmates’ output. Informing students early in the semester about what they must do to earn a desired grade can decrease anxiety and increase class cohesiveness.

Gurung (2002), for example, handles this dilemma effectively in his “Culture,

Development and Health” class, both clarifying his expectations and creating a rubric that does not penalize hard-working group members:

Group members will all get a similar grade UNLESS there are major discrepancies in individual contributions as indicated by self-evaluations. Members in danger of getting a lower grade than the group due to social loafing or for other reasons will be notified in time [to increase their contributions] if possible. (3)

An increasing number of faculty include a means by which students may track their grades electronically. Students seem to appreciate this opportunity. As classroom technologies like Blackboard or other Web-posted grading systems become more common, paper versions of grading sheets will be less prevalent.

Schedule

Becker and Calhoun (1999) reported that schedule information was important to students and used to guide preparation for exams. Omitting this information on one’s syllabus may have serious implications for students’ abilities to plan and learn during the semester, yet Littlefield (1999a) reported that many faculty omitted project due dates (42 percent) and exam dates (65 percent).

A schedule also should help students identify reading assignments, if possible by content area rather than only by chapter number. Introducing a subject area with an eye-grabbing phrase (such as “Making the most of your undergraduate years”) can orient students to a given topic and help them remember an essential idea or even motivate them (cf. Lloyd 1998). With textbooks rising in cost, students are finding other ways to complete reading assignments, including reading texts with similar material or a previous edition of a current text. Identifying the chapter with an eye-catching phrase can help students using other texts stay on track.

When reading assignments are not in assigned texts, it is especially useful to include a complete reference list. The text of one’s syllabus should indicate where these readings can be found (on reserve in the library, purchased from the bookstore, on the Internet, in PDF files linked to the Web syllabus, and so on). Even when the instructor has made readings available in a

convenient place, providing the complete source information makes it easier for students who choose to look for readings in a place more convenient for them. Of course, formatting this reference list in discipline-specific format also serves as a model for effective writing within the discipline.

Rationale

To encourage students to be passionate about a course and learning, tell them why you find it exciting (Office of Teaching Effectiveness and Faculty Development 1999). Tell them why you give assignments and why they are important. Littlefield (1999a) reported that about 12 percent of the Augsburg College syllabi she reviewed included the rationale for assignments, 4 percent included the philosophy of the course and assignments, and none related the course to the mission of the department or college. The relative scarcity of rationales suggests that many faculty do not consider their motivation for particular assignments—or at least fail to communicate this. We believe that providing the assignment’s rationale is an opportunity to get students and faculty working together. A clear rationale for assignments is also an opportunity to educate students and make the implicit explicit (Collins 1997). Consider Littlefield’s (1999b) rationale for group work:

Cooperative learning . . . is extremely effective in helping students be successful in college. This team-based approach assures active learning, and often allows for groups to work together to accomplish more than you could as an individual. In business and industry, teams are increasingly common; this class provides an opportunity to learn some team-related skills that will be useful to you in the workforce. (3)

Motivational Messages

Littlefield (1999a) reported that 38 percent of Augsburg College faculty listed expectations of students, but only 5 percent identified what students could expect of faculty. Many faculty listed their expectations for attendance, due dates, and academic honesty. Few described the consequences for violating these expectations.

Motivational messages can take either a positive or negative tone. In general, although we want to set lofty, yet achievable goals for our students, we should

indicate that we expect that most students will meet these goals.

The texts for this class are only a beginning. It is hoped (indeed, expected) that you will be stimulated to go beyond these sources and to read in the primary literature that makes up the corpus of early psychological knowledge and to read in the historical research in psychology today. History is not dead subject matter to be gleaned from a textbook; it is a vital area of research, currently enjoying a great deal of activity. (Benjamin 2001, 2)

Legalistic statements about attendance and academic honesty are often required by university handbooks and state laws and can easily undermine student/faculty relationships. Nonetheless, with forethought, one can be clear about the rules governing classroom behavior without being cold and accusatory. Appleby (2003) reports that clearly outlining expected and prohibited behaviors significantly decreases the frequency with which students engage in distracting behaviors, such as arriving late to class meetings.

University Support Services

First-year students often are not aware that university support services exist, and thus may not access resources that could make the difference between success and failure in a course or their academic careers (Collins 1997). Freshmen are interested in this information and preferentially focus on university-provided support services described in syllabi (Becker and Calhoun 1999).

Students who read syllabi where faculty offered help were more likely to say that they would be willing to use it (Perrine, Lisle, and Tucker 1995). However, few Augsburg College syllabi mentioned professorial, departmental, or university services (such as tutorial services, counseling center, career services, and writing centers) that might help students meet academic or personal goals throughout the semester (Littlefield 1999a). At first blush, this may appear to be a trivial issue. It is anything but—when we fail to educate students about services available, we fail to level the playing field that privileges traditional college students at the expense of other groups including racial minorities, immigrants, first generation college students, and students with learning dis-

abilities or psychological issues that interfere with learning (Collins 1997).

Appleby (2001) meets this goal in a somewhat different manner. He includes feedback from previous students in his "Orientation to a Major in Psychology" class in the syllabus (such as "Don't drop the class when you hear about the workload—it's not as difficult as it sounds. Dr. A is very willing to help his students").

Conclusion and Recommendations

The syllabus is often the first impression students have of a faculty member and course; its looks, however, can overshadow the content when insufficient care is put into its presentation (Matejka and Kurke 1994). We believe that the syllabus should be attractive without being distracting, and should be consistent with the tone of the course. The organization and highlighting features of word processing programs facilitate finding information about the course. Information that students access most frequently should be placed on the first page (Becker and Calhoun 1999). Effective and selective use of headers, graphics, and layout strategies can make syllabi more attractive and user-friendly (S. Kuhlenschmidt, personal communication, September 2, 2002). Kuhlenschmidt (2000), for example, uses organizing questions as headers to increase the readability of her syllabi, as well as to communicate that her syllabus is designed to meet her students' needs.

We believe that syllabi should be easy to navigate and have seen syllabi for interesting courses that were ineffective because of weak organization. This is particularly important for Web syllabi, syllabi that often contain a wealth of information but can be difficult to navigate. Paper syllabi should generally present information in the order described in this paper, with grading rubrics or paper assignments near or appended to the end.

The most effective syllabi we have seen are user-friendly and warm. They are neither condescending, nor do they assume the reader knows information they would be unlikely to. As warm syllabi are better remembered (Littlefield 1999a), consider presenting course requirements in a manner that suggests that faculty and students will work well

together. In general, however, consistency is key and the tone and proposed process articulated in the syllabus should match. Professors who expect to take an expert role should clearly communicate this in their syllabi, just as those who adopt a more student-centered approach should communicate this (Baecker 1998).

Syllabi are a paper contract between faculty members and their students, designed to answer students' questions about a course, as well as inform them about what will happen should they fail to meet course expectations. Smith and Razzouk (1993) reported that about half of the students in their study referred to their syllabi at least once a week. Nonetheless, students still had relatively poor memories of information contained there. Becker and Calhoun (1999) recommend revisiting information on the syllabus frequently to help students make wise decisions about their use of time.

Although Smith and Razzouk (1993) acknowledged that syllabi are imperfect ways of communicating course information, we believe that highly effective syllabi are characterized by completeness of information (identifying information, course description, course goals, assignments, schedule, and so on), motivational comments, and a style of communication that engages students as effective collaborators in the learning process. Rarely, however, will a syllabus be "perfect" the first time. Like Matejka and Kurke (1994), we recommend updating syllabi at the end of each semester based on the semester's experiences. Reviewing the course and the normal problems associated with it, while also considering solutions and how to present material more clearly, can be important first steps in creating a productive classroom learning environment.

Key words: syllabus, effectiveness, function

REFERENCES

- Angelo, T. A., and K. P. Cross. 1993. *Classroom assessment techniques: A handbook for college teachers*. San Francisco: Jossey-Bass.
- Appleby, D. C. 1999. How to improve your teaching with the course syllabus. In *Lessons learned: Practical advice for the teaching of*

- psychology*, ed. B. Perlman, L. I. McCann, and S. H. McGadden, 19–24. Washington, DC: American Psychological Society.
- Appleby, D. 2001. *B103 orientation to a major in psychology*, <http://www.lemoyne.edu/OTRP/projectsyllabus.html#careers> (accessed April 15, 2002).
- . 2003. Purposes and components of course syllabi. In *The evolving syllabus: Motivating students and maximizing success*. Symposium conducted at the annual meeting of the American Psychological Association, Toronto, Canada.
- Astin, A. W. 1985. *Achieving educational excellence*. San Francisco: Jossey-Bass.
- Baecker, D. 1998. Uncovering the rhetoric of the syllabus. *College Teaching* 46 (2): 58–62.
- Becker, A. H., and S. K. Calhoun. 1999. What introductory psychology students attend to on a course syllabus. *Teaching of Psychology*, no. 26:6–11.
- Benjamin, L. T. 2001. *History and systems of psychology*, http://www.lemoyne.edu/OTRP/syllabi_mac/history05mac.doc/ (accessed April 16, 2002).
- Brosman, C. S. 1998. The case for (and against) departmental syllabi. *Academic Questions* 11 (4): 58–65.
- Coffman, S. J. 2003. Ten strategies for getting students to take responsibility for their learning. *College Teaching* 51 (1): 2–4.
- Collins, T. 1997. For openers . . . An inclusive syllabus. In *New paradigms for college teaching*, ed. W. E. Campbell and K. A. Smith, 79–102. Edina, MN: Interaction.
- Gross, B. D. 1993. *Tools for teaching*. San Francisco: Jossey-Bass.
- Gurung, R. A. R. 2002. *Culture, development and health*, <http://www.lemoyne.edu/OTRP/projectsyllabus.html#health/> (accessed April 14, 2002).
- Kuhlenschmidt, S. 2000. *Issues in using the Internet in instruction*, <http://edtech.tph.wku.edu/%7Einternet/syll.html> (accessed September 7, 2002).
- Littlefield, V. M. 1999a. My syllabus? It's fine. Why do you ask? Or the syllabus: A tool for improving teaching and learning. Paper presented at the Society for Teaching and Learning in Higher Education, Calgary, Canada.
- . 1999b. *PSY 105: Principles of psychology*. Unpublished document.
- Lloyd, M. A. 1998. *Psychology 210—Careers in psychology* (Spring 1998), http://www.lemoyne.edu/OTRP/syllabi_pdf/Careers1.pdf/ (accessed June 24, 2002).
- Matejka, K., and L. B. Kurke. 1994. Designing a great syllabus. *College Teaching* 42 (3): 115–17.
- McKeachie, W. J. 1994. *Teaching tips: Strategies, research and theory for college and university teachers*. 9th ed. Lexington, MA: D. C. Heath.
- Office of Teaching Effectiveness and Faculty Development. 1999. *Launching a teaching system—1: A higher-level syllabus*, http://www.lemoyne.edu/OTRP/teachingeffectiveness/facultydevelopment/launching_a_teaching_system_1.html

- www.cudenver.edu/OTE/nn/vol7/7_1.htm/ (accessed June 24, 2002).
- Perrine, R. M., J. Lisle, and D. L. Tucker. 1995. Effects of a syllabus offer of help, student age, and class size on college students' willingness to seek support from faculty. *Journal of Experimental Education*, no. 64:41–52.
- Root, M. 2001. *Introduction to psychology*, <http://www.lemoyne.edu/OTRP/projectsyllabus.html#introductory/> (accessed April 15, 2002).
- Slattery, J. M. 2003. *Techniques in interviewing and casework*, <http://psy1.clarion.edu/syllint.html/> (accessed October 23, 2003).
- Smith, M. F., and N. Y. Razzouk. 1993. Improving classroom communication: The case of the course syllabus. *Journal of Education for Business* 68 (4): 215–21.
- Tata, J. 1999. Grade distributions, grading procedures, and students' evaluations of instructors: A justice perspective. *Journal of Psychology*, no. 133:263–71.
- Tinto, V. 1993. *Leaving college: The causes and cures of student attrition*. 2nd ed. Chicago: University of Chicago.
- Walvoord, B. E., and V. J. Anderson. 1998. *Effective grading: A tool for learning and assessment*. San Francisco: Jossey-Bass.

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