REVIEW

Best Practices in Syllabus Design

Jamie L. Wagner, PharmD,[a] Kathryn J. Smith, PharmD, [b] Chris Johnson, PharmD, MEd, [c] Michelle L. Hilaire, PharmD, [d] Melissa S. Medina, EdD[b,e]

[a] University of Mississippi, School of Pharmacy, University, Mississippi
[b] University of Oklahoma Health Sciences Center, College of Pharmacy, Oklahoma City, Oklahoma
[c] University of Arkansas, College of Pharmacy, Little Rock, AR
[d] University of Wyoming, School of Pharmacy, Laramie, Wyoming
[e] Associate Editor, *American Journal of Pharmaceutical Education*, Arlington, Virginia

Corresponding Author: Kathryn J. Smith, University of Oklahoma Health Sciences Center, College of Pharmacy, 1110 N Stonewall Ave., CPB 229, Oklahoma City, OK 73117. Tel: 405-271-6878 x 47257. Email: Kathryn-j-smith@ouhsc.edu

The syllabus is the cornerstone for directing faculty and student interaction within the didactic and experiential settings. Within each syllabus is both essential and optional information to guide students, faculty, and administration in course expectations, as well as how the course aligns within current curricular requirements to maintain program accreditation. Most syllabi contain a plethora of information that continues to grow each year, warranting concerns of syllabus bloat combined with dwindling student attention to syllabus detail. This paper summarizes best practices related to designing effective course syllabi and recommendations to promote clear and concise communication between students, faculty, and administrators involved in pharmacy education.
Keywords: student pharmacists; curriculum; education, pharmacy; syllabus; course design

INTRODUCTION

A course syllabus is the first point of interaction between faculty and students. The primary goal of a syllabus is to communicate information about a course. Students are likely interested in what topics will be covered in the course, how those topics will be taught and how performance in the course will be assessed. Faculty teaching in the course will use a syllabus to outline the plan for the course, set expectations for how students are to communicate with the faculty, how the covered topics fit into the larger curriculum, and how students will be expected to interact with the course material. Unfortunately, this has led to the expansion of the syllabus from 1-2 pages in the 1990's to more than 20 pages today.[1] Additionally, administrators may view the syllabus as an agreement[2] between students and faculty for the delivery of course content, including how disputes will be resolved, as well as evidence for granting or maintaining program accreditation.[3] This has led to many faculty to include verbiage in the syllabus to account for every "what if" scenario that might be challenged in court.[1] The syllabus can set the tone for a course, for better or worse. Taking time to intentionally develop a syllabus can demonstrate one's commitment to the course contents as well as to one's students. In this review, we seek to summarize best practices in syllabus design to promote clear and concise communication between students, faculty, and administrators involved in pharmacy education while not falling into the trap of syllabus bloat.

A keyword search was conducted in PubMed and ERIC for terms including syllabus and syllabi. Articles were excluded if the terms referred to a curriculum rather than a course document or were not published in English. Additionally, keyword searches were conducted in common pharmacy education journals to ensure pharmacy-related articles were included. After analyzing the articles, recommendations for syllabi construction were put into the categories described throughout the rest of the paper.

Traditional Structural Elements

While there are multiple perspectives on the use of syllabi in education, there are several elements of syllabi that must, or should, be included. **Table 1** outlines what is required in syllabi compared to what is optional. By focusing on only what must be included in syllabi, instead of in other locations such as the course management system, faculty can help combat syllabus bloat.

Baseline Course Information

1

Baseline course information includes the course name and number, term and year, credit hours, course description, and location and time of class meetings. This information can help situate the course within degree, departmental, or institutional requirements[3–7]; assist in tracking requirements for accreditation; and help students understand the general approach to the course. This assists students, faculty, teaching assistants, and administrators in tracking progress toward degree requirements and engaging with the course. Additionally, students may benefit from a course description that provides an overview of the course, how it fits in to the curriculum (including how preceding courses laid the foundation for this course and how following courses build upon it).[4,7–9] Not only can this information be used by administrators and other faculty in accreditation and curricular improvement efforts but can also serve to excite and motivate students about the course.[4,9] Lastly, a simple statement that allows for syllabus amendments or a disclaimer that the syllabus can change will give some flexibility to the course, provided the students are also made aware of any changes that do happen.[2,5]

Faculty Information

It is probably obvious, but complete faculty information must be included on an effective syllabus. A study of nursing students and faculty indicated that both groups found this information important to include on syllabi.[10] Faculty information should include faculty name, credentials, title, contact information, office location, and office hours (or schedule appointments).[3–5,7–10] It is important to include contact information for other instructors within the course as well.[8] The inclusion of multiple contact methods for students to reach instructors can aide in creating a more inclusive course, as there may be students that prefer a certain method of communication, along with facilitating open communication with all enrolled students.[11,12] Faculty may also wish to include some biographical information that details their training and credentials that detail their qualifications to teach the course.[7] Disappointingly, student evaluations of female, non-English speaking, and Black, Indigenous and People of Color (BIPOC) faculty are disproportionately low due to potential biases. One bias discussed in the literature is the perception of students that these faculty are less qualified than male, English speaking and/or white faculty.[13,14] Describing training and credentials in syllabi therefore may address this potential bias.[13,14] In addition to information about the instructors, the inclusion of information regarding the teaching style and philosophy for the course can help students identify how this course will help them grow, along with the rationale for the design of the course.[7]

Course Goals and Objectives

Course goals and objectives are widely considered to be important elements of an effective syllabus by both students and, particularly, faculty.[10] Course goals are often broader, less specific statements about the course. These goals help students to understand the expectations of the course, what students will learn, how they will develop, and how the course fits in to the broader curriculum (ie, becoming a pharmacist).[5,7] Additionally, syllabi should include specific, measurable course objectives that detail how students should develop in cognitive, affective, and/or psychomotor domains.[3–5,7–9] Faculty need to consider not only *what* knowledge or skills students will learn during the course, but also *how in depth* they will need to learn that information to be able to demonstrate mastery.[7] In addition to helping the students have clear expectations for the course, it can help faculty teaching in preceding and following courses align courses to optimize student learning and administrators track student progression toward degree and institutional learning objectives or competencies.[3,5,9,11]

Course Calendar

Students find the course calendar, or course schedule, to be one of the most critical elements of the syllabus, especially due dates for assignments.[10] While preparing a course calendar might seem straightforward, there are a number of elements to include which can maximize the effectiveness to students. .[3–5,7,8,10–12] In addition to including dates and times of class meetings, assignments, and assessments, faculty could include recommended preparation for each session, and how holidays or professional or university events affect class meetings. The calendar could also include information about specific teaching methods, such as Team-based Learning (TBL) or Problem-based Learning (PBL), for sessions that may require a different preparation approach for the session(s). Explicit, detailed information regarding learning activities and preparation can be more learner-centric by providing the information students need to develop a plan for their successful completion of the course and reduce uncertainty, which can also improve student grades in the course.[4,7,11,12,15]

Course Materials

Information about the course also includes information about the resources students need to successfully complete the course. Information regarding textbooks should include: title, author names, editions, links to purchase online or in

library, as well as other ways to access the materials (such as the library; including number of copies available).[3–8,16] Faculty should also include links to other resources that may be beneficial for learning, yet not required, such as the institution's learning management system, other readings/videos needed for class preparation, high-speed internet, supplies, library hours, and tutoring or other academic assistance.[7] Faculty may or may not need to include information about computer requirements for the course depending on where else students have access to this information at their institution (eg, technical standards). Including these resources can create a more inclusive classroom for students who may require these additional resources to be successful.[11]

Attendance and Professional Behaviors Expectations

One important policy that may or may not be driven by the University is the course attendance policy. Attendance usually is measured by excused and/or unexcused absences, as well as "tardies." This attendance policy should be stated in a way that encourages students to be responsible for their own learning through attending class.[10] One way to accomplish this is to consider a flexible absence policy, which can reduce stress in a possibly already stressful situation, such as being stuck in traffic or having a sick child.[7,11] An example of a flexible policy is: "I understand that there are times when something will prevent your attendance (illness, emergencies, participating in a university event; sleeping in or blowing off class doesn't count, sorry). If an absence is unavoidable, you should…". If flexibility is not an option, explaining why attendance is mandatory can help students come to terms with showing up to class and can encourage attentiveness within class.[7]

Expected behavior within the classroom or in virtual platforms should be outlined for students, including guidance for the use of technology (eg, cell phones, laptops, clickers) during class.[5,11] When setting expectations for classroom behavior, consider how students can translate the expectations into the professional environment. Additionally, check with the University to determine if there are detailed professionalism expectations within the classroom that include not only behavior, but also dress code.

Grading

Some of the most important information in the syllabus, per students, are the assignments, exams, quizzes and grading criteria.[10] Activities which can contribute towards a course grade include class participation, group work, attendance, homework, quizzes, and exams. Once you determine what activities will be included in the course grade, it is imperative that the grading scheme for each activity is clearly explained.[7] The course grading scheme should go beyond the typical University outline for a letter grade (eg, 89.5%-100% = A) to address issues such as the points available for each activity, opportunities for extra credit, and if there will be any score rounding or dropping.[4–6,11] Additionally, providing descriptions, purpose, outcome expected, and rubrics for each assignment will give clarity in interpreting the grade and can reduce the grade challenges that might have occurred otherwise.[2,5,7,10] However, as grade challenges may still occur, language regarding a procedure for handling these could prove useful.

Students will frequently use this grading information in the syllabus to help them determine how much time and energy to contribute to each course assignment, especially if they know how much each activity will impact their course grade.[9] Despite their best efforts, inevitably, students will turn an assignment in late or miss turning in an assignment altogether. When addressing missed or late assignments, quizzes, or exams, there are several aspects to consider including in the syllabus. Some items to address for these missed or late items include the ability to retake or make it up; the timeframe to make it up; and any percent reduction for time late in making it up.[5,10,11] A key perspective to consider is giving the students similar flexibility in turning things in that is available in a career, as well as not jumping to conclusions about why the student turned an assignment in late or did not turn one in at all.[7]

Lastly, despite best efforts, some students will not be successful in your course. Including information on additional support information for students failing or at risk for failing the course, as well as how a failing grade is handled, can demonstrate to students that you value their efforts and want to help them succeed.

Recent Structural Elements
Required Institutional Language

Most institutions have policies that must be in every syllabus and can include academic misconduct/academic integrity, inclusivity, accessibility, and harassment (eg, Title IX). These policies may be quite lengthy, so consider examining the potential of paraphrasing the policy while concomitantly referring the student to the appropriate policy or document (eg, student handbook, student catalog).[10]

While the reflex language for outlining academic misconduct/academic integrity is typically negative, consider using statements that are more focused towards equity and the importance of integrity and credibility to the students'

future professional careers.[7,11] Additionally, language inviting an openness to questions regarding what is and is not allowed (eg, plagiarism and cheating) may help prevent accidental violations.[11]

The syllabus should invariably have a statement regarding embracing diversity, equity, and inclusion in the classroom, however, it is up to the individual instructor to demonstrate this throughout the syllabus. Some ways to accomplish this include the diversity of required textbooks and journal articles, including "trigger warnings" for potentially sensitive content, and including statements on the benefits of a diverse classroom experience.[7] Furthermore, students need to feel that they matter to you, and including statements that address use of pronouns and religious absences are but a few examples of how to accomplish this.[7,11]

Many universities have "disability statements"; however, this terminology can be extremely exclusionary. Instead, consider using the word "accessibility" and reframe this section in a way that defines what diverse learning looks like that encompasses the entire class and creates a more inviting environment.[7] Some additional information to include is the contact information for the resource center for students to apply for accessibility assistance and other accommodations within the classroom.[11]

Lastly, every syllabus needs to identify that harassment in any form will not be tolerated in the classroom due to Title IX. Students should feel supported and safe within the classroom and need to be provided with a way to contact someone if they do not.[11]

Optional Information to Consider Including

The potential exists for syllabi to be perceived as overly negative in tone as most are phrased in a way that assumes students will try to break all the rules.[7] However, there are ways to embed more positive language throughout the syllabus. Some ways to insert positivity include providing students with information on mental health resources, mentioning how your class and you are "safe spaces" for the student[11], inserting empathy and sympathy statements that demonstrate that you are giving the student the benefit of the doubt[16], and giving motivational messages that spur students to go beyond the classroom and embrace lifelong learning.[9] Students will also appreciate any advice on how to be successful in the course, such as proposed study habits, time management, and prior areas of struggles and how to overcome those.[11]

Additional Considerations for Syllabus Construction
Key Advice for a Successful Syllabus

Additional resources available for supporting syllabus design include a syllabus template, the curriculum committee or administrator, and self-reflection. A syllabus template may be provided by a department or a college for use by faculty. A benefit of syllabi templates include consistency across courses, thus making it easy for students to find important information and for faculty to hold students to similar standards across courses.[6] The curriculum committee is often responsible for reviewing courses delivered on a rolling basis (eg, every three years). Since curriculum committee members will be familiar with the aspects of the syllabi examined during course reviews and with the curriculum, asking for a review of changes made to your syllabus between formal curriculum committee reviews can be helpful. The Dean of Curriculum or Dean of Assessment at an institution is often the author of a syllabus template and is another good person to ask for feedback about specific elements you want to include in your syllabus. Finally, at the conclusion of a course, consider reflecting on the aspects of the syllabus you would like to change for the next delivery of the course. Minimally, syllabi should be updated annually to include new policies and accurate information. Overall, however, the syllabus should be viewed as a living document, which can and should be adjusted from year to year as needed to meet the needs of the students, faculty, and administration. That said, faculty must also balance the need for adding new information to the syllabus by removing information which is no longer relevant. Most syllabi contain a plethora of information that continues to grow each year, warranting concerns of syllabus bloat combined with dwindling student attention to syllabus detail.

Possible Roadblocks to Be Prepared For

Faculty need to be aware of potential pitfalls when developing course syllabi. One pitfall is when faculty use vague language in their syllabus related to course expectations, such as "students are encouraged to regularly attend class". Not only is the language in this expectation vague, but it also lacks specific consequences for missing one or more classes. It is important for faculty to document specific expectations for student attendance, content, activities, assessments, academic integrity, and policies related to their course, as well as consequences for failing to meet those expectations. The inclusion of specific consequences can assist faculty to enforce the consequences more consistently. For instance, a more specific expectation and consequence could be stated as, "Students will receive 1 point per class session

for attendance, which will be taken using a seating chart. If a student is late to class or is absent, they will receive zero points for that class session. Students who miss more than three classes risk receiving an F in the course." It is important to note that courts will not uphold syllabi as legal documents.[2] While syllabi have been historically regarded as legally binding contracts between students and professors, legal precedents reveal that syllabi are not considered contracts "because the courts have refused to recognize educational malpractice or breach of contract as a cause of action."[2] However, they may be binding in student grade appeal and grievance proceedings and are used in judicial hearings.[2]

Moving Forward

As described earlier, a syllabus should not be seen as a contract but rather a guide to how the course and potential disputes will be handled. Administrators encourage having college or university syllabi templates to assure that university policies and key curricular review and accreditation content are documented. An Assessment or Academic Affairs Dean or designate could review all faculty members' syllabi each year to ensure consistency. Faculty Development and/or Curriculum Committee workshops could also be offered focusing on syllabi development for all faculty members is a way for institutions to make sure that all faculty are aware of institutional processes for syllabi. However, the ability to tailor a syllabus related to course delivery and assessment should be up to the instructor at hand.

CONCLUSION

Just as teaching approaches have changed, so have the ways in which instructors communicate with students using syllabi. By evaluating syllabi yearly, we can more quickly identify the occurrence of syllabus bloat and make strides to correct this. Additionally, as we embrace technology, we may see more standard links being added as QR codes or embedded links that can change as Universities/Colleges update documents to help combat bloat.

REFERENCES

1. Deans T. Yes, Your Syllabus Is Way Too Long. The Chronicle of Higher Education. Published January 21, 2019. Accessed April 18, 2022. https://www.chronicle.com/article/yes-your-syllabus-is-way-too-long/
2. Rumore MM. The Course Syllabus: Legal Contract or Operator's Manual? *Am J Pharm Educ*. 2016;80(10):177. doi:10.5688/ajpe8010177
3. Ortiz A, Panettieri R. Guidelines for Developing a Radiologic Technology Course Syllabus. *Radiol Technol*. 2019;90(4):413-414.
4. Appleby DC. How to Improve Your Teaching With the Course Syllabus. *APS Obs*. 1994;7(3). Accessed July 14, 2021. https://www.psychologicalscience.org/observer/how-to-improve-your-teaching-with-the-course-syllabus
5. Johnson C. Best Practices in Syllabus Writing: Contents of a Learner-Centered Syllabus. *J Chiropr Educ*. 2006;20(2):139-144. doi:10.7899/1042-5055-20.2.139
6. Matejka K, Kurke LB. Designing a Great Syllabus. *Coll Teach*. 1994;42(3):115-117. doi:10.1080/87567555.1994.9926838
7. Gannon K. How to Create a Syllabus. The Chronicle of Higher Education. Published September 12, 2018. Accessed November 22, 2021. https://www.chronicle.com/article/how-to-create-a-syllabus/
8. Hess JL, Whittington MS. Developing an Effective Course Syllabus. *NACTA J*. 2003;47(3):23-27.
9. Slattery JM, Carlson JF. Preparing An Effective Syllabus: Current Best Practices. *Coll Teach*. 2005;53(4):159-164. doi:10.3200/CTCH.53.4.159-164
10. Davis S, Schrader V. Comparison of Syllabi Expectations Between Faculty and Students in a Baccalaureate Nursing Program. *J Nurs Educ*. 2009;48(3):125-131. doi:10.3928/01484834-20090301-03
11. Gin LE, Scott RA, Pfeiffer LD, Zheng Y, Cooper KM, Brownell SE. It's in the syllabus … or is it? How biology syllabi can serve as communication tools for creating inclusive classrooms at a large-enrollment research institution. *Adv Physiol Educ*. 2021;45(2):224-240. doi:10.1152/advan.00119.2020
12. Peer K, Martin M. The Learner-Centered Syllabus: From Theory to Practice in Allied Health Education. *Internet J Allied Health Sci Pract*. Published online 2005. doi:10.46743/1540-580X/2005.1069
13. Fan Y, Shepherd LJ, Slavich E, et al. Gender and cultural bias in student evaluations: Why representation matters. *PLOS ONE*. 2019;14(2):e0209749. doi:10.1371/journal.pone.0209749
14. Ghorpade J, Lackritz JR. Student Evaluations: Equal Opportunity Concerns. *Thought Action*. 1991;7(1):61-72.
15. Eng M, Nicholls J, Mailloux L. Tone and style in pharmacy course syllabi. *Curr Pharm Teach Learn*. 2017;9(2):208-216. doi:10.1016/j.cptl.2016.11.010
16. Robb M. The Learner-Centered Syllabus. Billings DM, Kowalski K, eds. *J Contin Educ Nurs*. 2012;43(11):489-490. doi:10.3928/00220124-20121024-26

Table 1. Required vs Optional Syllabus Elements to Avoid Bloat

Syllabus Structural Element	Required Syllabus Element	Optional Syllabus Element
Baseline course information	• Course name and number • Term and year • Credit hours • Location and time of class meeting	• Course description
Faculty information	• Name • Credentials • Title • Contact information • Office location • Office hours	• Contact information for other instructors • Biographical information that details training/qualifications • Teaching style • Teaching philosophy
Course goals and objectives	• Course goals	• Course objectives • Learning outcomes
Course calendar	• Assignment due dates • Assessment dates	• Preparation for each session • How holidays or professional / university events affect class meetings • Specific teaching methods • Learning activities and preparation for such activities
Course materials	• Citations of required resources	• Ways to access the resources • Preparation materials • Library hours • Internet connectivity • Tutoring • Academic assistance
Attendance and professional behavior expectations	• Attendance policy • Abbreviated expected classroom behavior (eg, cell phone use, laptops, clickers)	• Explanation for importance of class attendance • Expanded expected classroom behavior (eg, respect towards others, how to translate expectations from classroom to clinical settings)
Grading	• Activities that contribute towards course grade • Grading scale (percentages and letter grade)	• Explanation of how activities will be scored • Points for each activity • Score rounding or dropping • Opportunities for extra credit • Assignment descriptions • Purpose for assignments • Outcomes expected with each assignment • Assignment rubrics • Procedure for handling grade challenges • Procedure for handling missed or late assignments / assessments
Required institutional language	• Paraphrasing or including a QR code or hyperlink to full policies	• Full policies
Optional information to consider including	• None	• Mental health resources • Motivational messages • Advice for being successful in the course • Proposed study habits