# Class Syllabi, General Education, and ePortfolios

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A study of undergraduate student experience with class syllabi revealed several concerns for improvement in areas directly related to General Education and assessment strategies using electronic portfolios. We report several student interests and suggestions, including the need for consistent syllabi that contain information designed to promote success in classes. Students report that faculty members teaching General Education courses have not adequately engaged in helping them with electronic portfolio requirements. Results of this study suggest that better communication, through carefully constructed syllabi, is needed to connect students and instructors to the importance of General Education and the use of electronic portfolios for assessment and student documentation of learning.

Several studies of class syllabi have attempted to characterize useful attributes and functions in a variety of contexts. Syllabi are often considered a "contract" between instructors and students (Garavalia, Hummel, & Wiley, 1999; Parkes & Harris, 2002; Smith & Razzouk, 1993). However, as with any document, syllabi are subject to errors or inattention (Baecker, 1998; Parkes, Fix, & Harris, 2003) and may not serve the intended purpose or meet expectations of all parties involved. Our aim was to explore how effectively class syllabi were being used as a form of communication about the goals and expectations of General Education courses and how those goals were meshed with the requirement of students to document learning using electronic portfolios.

Most US academic institutions have some form of core educational requirements for undergraduate students, often known as General Education (Gen Ed). The regional accrediting body of Clemson University requires 30 credit hours of Gen Ed for each student, which represents roughly a quarter of the credits needed for graduation. Our Gen Ed program requires the completion of courses in the areas of mathematical/scientific/technological literacy, arts and humanities, social sciences, science and technology in society (STS), and cross-cultural awareness. In addition, students receive instruction within their disciplinary major in the areas of communication, critical thinking, and ethical judgment. Undergraduates are required to document achievement of competency in each area of Gen Ed by submitting examples of their work to an electronic portfolio (ePortfolio). Successful completion of the ePortfolio is required for graduation.

Changes to the General Education curriculum at Clemson University, and the consequent implementation of new student learning competencies, has raised interest among students and faculty about communicating these requirements and the use of ePortfolios for documenting learning outcomes. Students deposit course artifacts (e.g., essays, projects) into their ePortfolios to demonstrate General Education competencies and compose short rationale statements to reflect on their learning. Gaining insights from campus leaders, faculty, and students could help promote the success of ePortfolios as a mechanism for student learning and program assessment (Reardon & Hartley, 2007; Reardon, Lumsden, & Meyer, 2005; Rhodes, 2008). In order to focus students on their General Education requirements, instructors should use course syllabi to describe specific class assignments that might be related to the General Education competencies (Eberly, Newton, & Wiggins, 2001; Garavalia et al., 1999; Parkes & Harris, 2002).

Ahn (2004) describes benefits provided by ePortfolios: promoting university-wide establishment of education goals and expectations, providing students with opportunities to reflect on their learning, and giving instructors the ability to give feedback on student work and progress. A study by Reardon et al. (2005) examined the usefulness of ePortfolios to employers, who endorsed the idea of ePortfolios and agreed that "access to information about students' employability skills would be useful" (p. 371). Employers also identified eight skills that were necessary in the working world: communication, creativity, critical thinking, leadership, life management, social responsibility, teamwork, and technical/scientific skills. Thus an ePortfolio that highlights these skills may be used to help students obtain employment. In another survey of employers (Ward & Moser, 2008), 16% report that they use ePortfolios in initial screenings and 56% indicate they would like to use them in the future. When asked about what would be found in student ePortfolios, responses included: "Resumes/references (93 percent), Written work (39 percent), Projects (37 percent), Presentations (33 percent), Lesson plans (23 percent), Case studies (7 percent), Artistic performances (6 percent)" (Ward & Moser, 2008, p. 13-14).

The study presented here was designed to reveal how faculty and students might be using syllabi to address the new General Education and ePortfolio

requirements. To access that information, a survey of undergraduates was constructed to provide their perspectives on both Gen Ed and the use of ePortfolios. Our goal is to provide data for faculty and administrators interested in combining ePortfolios with academic requirements like Gen Ed to guide the use of syllabi for instruction on their campuses (Eberly et al., 2001).

### The ePortfolio Program

The revision of the General Education curriculum at Clemson University in 2004 coincided with a campus-wide requirement for students to own and use laptop computers. Deliberations among faculty designing new curricula included discussion of the appropriate use of computers in the learning process and how the university community might capitalize on unique opportunities afforded by universal computer ownership by the student body. A recent accreditation reaffirmation from the Southern Association of Colleges and Schools (SACS) injected these discussions with ideas concerning assessment and the need for a move toward the use of student learning outcomes for program assessment. In addition, recent national recognition for incorporation of communication across the curriculum (CAC) efforts encouraged faculty to consider the use of electronic portfolios as a mechanism to document student achievement and create a new assessment window for program improvement. Several CAC faculty were experienced with the use of ePortfolios.

After some technical and philosophical evolution, the campus now uses an approach to ePortfolios that provides both flexibility for students and dependable data collection for assessment. Students may use any available ePortfolio platform they wish, although training is provided for creation of ePortfolios using Google Sites (sites.google.com). Other platforms seen in use by students include Weebly (www.weebly.com) and Wix (www.wix.com), and some students build websites using their university allotted server space. Use of platforms like Google is encouraged so that students can have transportability of their work beyond graduation and so that they may control access to external viewers. Training focuses on the basics of what an ePortfolio should contain, but students are at liberty to be as creative as they wish. Yearly ePortfolio award winners tend to have well developed sites that include personal, academic, and career materials. Some students report using their ePortfolio in job application, but that is not a primary intent conveyed to students in training materials.

In order to collect data on student work deposited in ePortfolios, a system was created to allow students to tag artifacts to the General Education competencies. In the CUePort system a student indicates documents that meet the Gen Ed competencies and writes a short rationale statement to describe why each artifact is an appropriate example of their understanding of that learning outcome. A copy of the artifact is stored on a secure campus server. Faculty and trained student assessors (e.g., members of undergraduate research teams) score artifacts in CUePort using established faculty-created rubrics; up until the time of graduation students have the ability to replace artifacts in the tagging system in the event that the score indicates a poor match to the competency. Final judgment of the tagged items is in the hands of faculty participants in the ePortfolio program, and students who fail to meet the established standards are prohibited from graduating. Finally, during a weeklong summer assessment meeting, a consortium of faculty review samples of work submitted by recent graduates. The results of these reviews are used to revise General Education requirements and to provide programmatic feedback to departments teaching the Gen Ed courses.

Students can learn about Gen Ed competencies in the printed undergraduate catalog, in the online catalog, on the Gen Ed website, on the ePortfolio Program website, and in the ePortfolio tagging tool system itself (CUePort). Students receive multiple reminders from the ePortfolio Director about starting, managing, and completing their ePortfolios.

### Research Methods

As a way to become more familiar with syllabi across all subject areas, sample syllabi submitted to the university General Education Syllabus Inventory were analyzed. The Office of Assessment created the Inventory in an attempt to document which Gen Ed competencies were covered in which courses. Following the research interests of the team, every Gen Ed course in science, mathematics, and STS was sampled. Syllabi were evaluated based on parameters set forth in the requirement memo sent to faculty from the Dean of Undergraduate Studies at the beginning of each semester, which details syllabus requirements such as absence policy, integrity policy, topical outline, evaluation criteria, etc. All instructors are expected to utilize this memo in planning their syllabi and to adhere to the list of required components. Several syllabi were reviewed to identify the required elements as well as the extent to which syllabi included information about General Education. A simple yes/no rubric was applied to each item to indicate how well a sampled syllabus covered the requirements.

This preliminary data were used to establish a basic understanding of the variety of instructor approaches used in course syllabi, including how information pertaining to Gen Ed ePortfolios was incorporated.

Survey questions were generated in order to collect feedback from undergraduate students using the web tool Survey Monkey (www.surveymonkey.com), and all undergraduates were contacted by email and asked to participate in this survey anonymously. No incentive was offered for participation. Over a two-week period just prior to final exams, 984 survey responses were collected from an undergraduate population of approximately 14,000 students. Demographics of the response group very closely matched gender, class level, and major of the general undergraduate population. The free response answers were coded (Saldaña, 2009) for similarities and collated for group analysis by the research team.

### Survey Results

According to results from the student survey, a large majority (80%) of students indicated that they consult their class syllabi at least once a week (Table 1). A study by Becker and Calhoon (1999) showed that students' attention to syllabi dwindles as the semester progresses; therefore, it is important that all critical information for the class be placed in the syllabus so that students can focus on these points early in the semester. Most Clemson students (87%) see the syllabus as a positive and necessary aspect of a course that is a key ingredient for success. Despite the importance of syllabi shown through the survey results, 80% of students report having had a syllabus that did not meet their expectations or was not useful in helping them to succeed in class. This aligns with results found by Habanek (2005), where a minority amount of the syllabi studied met necessary requirements to be considered effective. As indicated by 95% of the students in our survey, syllabi are important for planning and should include items such as specific test dates. This is consistent with the results of Becker and Calhoon (1999), which indicate that when considering their syllabi, students attend most to dates of exams and assignments.

Students were asked to evaluate the contents of their current syllabi (Table 2). Despite being a requirement for Clemson students since fall 2006, only 59% of students responded that General Education competencies are included in their syllabi, and only 51% responded that they wanted to see General Education competencies included. This result might be due to lack of concern or awareness by both faculty and students. When Gen Ed guidelines are not included in syllabi, students are not likely "to be aware of the purpose or meaning of the course or the way in which the course contributes to an overarching educational program" (Eberly et al., 2001, p. 70). Many of the components that Clemson students expected to be included in their course syllabi are also listed as suggested items by Garavalia et al. (1999).

Students who entered Clemson University in fall 2006 or later are required to tag artifacts in an ePortfolio as appropriate representations of competencies set forth in the General Education curricula. The responses in Table 3 were only collected from students with this requirement. While 65% of these students know which of their current courses are classified as Gen Ed, this is lower than would be expected, since all students must complete 30 credits of General Education. There is clearly a need to work toward a better understanding of which classes satisfy these credits and are thus connected to the ePortfolio requirement.

Despite significant efforts to communicate with students about their Gen Ed requirements, only 41% of students report that they are aware of services available for help with ePortfolios. Help is offered online and in person through the ePortfolio Program, but awareness needs to be increased within the student population so that these avenues may be utilized. There appears to be some apprehension among students about ePortfolios; this is evidenced by the 75% who do not see the benefit of this requirement. Unfortunately, a majority of students (60%) are not in favor of having a required class dedicated to help them design their ePortfolio. As a compromise, the class required for all new students (i.e., LIB 100, Clemson Connect) has been modified to include online tutorials for constructing an ePortfolio.

Table 1
*Syllabi Use*

| Occurrence | Response Percent |
| --- | --- |
| Daily | 17.9% |
| Weekly | 61.7% |
| Monthly | 14.0% |
| Once or twice a semester | 6.0% |
| Never | 0.4% |

Table 2
*Typical Syllabi Content*

| Item | Response Percent |
| --- | --- |
| Contact information | 98% |
| Academic integrity policy | 97% |
| Office hours | 97% |
| Grading policy | 94% |
| Course description | 93% |
| Class attendance policy | 92% |
| Exam dates | 86% |
| Important due dates | 86% |
| Exam make-up guidelines | 67% |
| General Education competencies | 59% |
| Page numbers of specific readings | 52% |
| List of assigned homework problems | 46% |

Table 3
*General Education Awareness*

| Item | Strongly Disagree/Disagree | Agree/Strong Agree |
| --- | --- | --- |
| I know which of my current classes meet General Education requirements | 35% | 65% |
| I am aware of services to help me with my Gen Ed ePortfolio | 59% | 41% |
| I think that the Gen Ed ePortfolio will be beneficial to me in the future (e.g., job interviews, graduate school applications) | 75% | 25% |
| I would like to have a required class specifically designed to help me create my ePortfolio | 60% | 40% |

Table 4
*Question: Where do you go to get help with ePortfolio?*

| Response | Response Percent |
| --- | --- |
| I haven't started yet | 43.9% |
| Blackboard | 30.1% |
| I need help but haven't asked yet | 29.1% |
| Course instructor | 24.2% |
| Friends | 21.2% |
| Academic advisor | 8.7% |
| Campus IT website | 7.4% |
| Class of 1941 Studio for Student Communication | 5.5% |
| I never need help | 5.5% |
| Course syllabi | 4.2% |
| Course teaching assistant | 3.0% |

A question was included on the survey that asked, "Where do you go to obtain help with your ePortfolio?" Students were allowed to select all responses that applied. The data are summarized in Table 4. Unfortunately, the most frequently selected response (44%) was that most students have yet to start work on their ePortfolio. Students might be procrastinating because their graduation is a few years away and their ePortfolio is not high on their priority list. Almost a third of the responses (30%) indicate that students refer to their Blackboard home page for help. Blackboard is the classroom management system used at Clemson to connect instructors and students online (e.g., documents, discussion boards). The magnitude of this

response is somewhat unexpected since there is not much material related to ePortfolio available on Blackboard. About as many students (29%) have yet to seek help on the completion of their ePortfolios, which may indicate that either these students are not doing their ePortfolios or do not know where to begin.

Only 5.5% indicate receiving help at the Class of 1941 Studio for Student Communication (a campus multifunction communication facility). Student assistants are available at the Studio Monday through Friday from 9:00 a.m. to 5:00 p.m. to help students with their ePortfolios and communication skills in general. The number of students that report receiving help at the Studio is surprisingly low considering that this site is centrally located and designated to help students with their ePortfolios. Even a visible campus resource can go un-noticed by students, so it is clear that improvements are needed to educate students about where to go for help. The program administrators might improve things by expanding online technical support to help students in need (Waters, 2007). Students are not always technically savvy and this could aid students in the design and creation of their ePortfolio, as well as helping them solve technical problems they might encounter.

**Survey Comments on Syllabi**

A free response section in the survey was included to further document students' thoughts on syllabi. The question was posed as "What changes would you like to see made in class syllabi?" Of the coded responses, 60% indicated that their class syllabi should be more detailed (Figure 1). Students indicate that syllabi should include items such as exam dates, assigned homework problems, pages for reading material corresponding to class sessions, Gen Ed competencies, project outlines, and Supplemental Instruction (i.e., peer tutoring) information where applicable, which align well with the suggestions of Leeds (1993). These results are similar to those from a study done in an introductory Psychology class where the items on the syllabus that students pay the most attention to were found to be exam and quiz dates, due dates of assignments, and reading material covered by an exam or quiz (Becker & Calhoon, 1999). The findings from this investigation are also similar to those in a study, which found that students would prefer more rather than less in their syllabi (Habanek, 2005). Baecker (1998) found that syllabi are often drafted without the author paying attention to the language and the meaning of the directions and information contained in them. This is consistent with our results corresponding to the next highest percentage of coded responses (25%), which demonstrates concern about overall syllabus format. Student comments indicate a lack of consistency among

classes—some professors change exam dates frequently whereas others fail to list exam dates. According to Parkes et al. (2003), it is important that syllabi be consistent in order to be most effective.

The free response section also posed a more general question: "Do you have any other comments about class syllabi?" Student responses voiced an additional concern about access to syllabi. Students suggest that a copy of all class syllabi should be posted online in any of a variety of ways. This indicates that most students are not aware of the campus Syllabus Repository, so this resource needs to be better advertised. Another common response was to make syllabi more concise because if they are too long students may experience an "information overload" (Keller, Marcis, & Deck, 2008, p. 13). This is somewhat inconsistent with a previous finding that students wish syllabi to be more detailed—indicating that students seek a balance between detail and brevity. A syllabus needs to have as much helpful information as possible, even if that means it is long, but the information should be in the simplest format possible with avoided redundancies (Garavalia et al., 1999).

**ePortfolio Comments**

Responses to a question requesting feedback on the use of ePortfolios were collected only from students who indicated that they must complete an ePortfolio based on their semester of entry. In the ePortfolio free response section of the survey, students were asked the question: "What changes would you like to see in class syllabi concerning Gen Ed or Gen Ed ePortfolios?" The main concern identified was availability of a list of specific assignments that could fulfill the requirements for the different Gen Ed competencies (38%). This issue could best be resolved by minor adjustments to syllabi. The second highest response (19%) was to eliminate ePortfolios altogether. Students indicate that they would like to understand more clearly the rationale behind Clemson's ePortfolio requirement and how it will impact their career. Additional responses indicate the need for more help and information about Gen Ed ePortfolios because of apparent confusion over the resources available.

Nevertheless, in the present survey, some students do indicate that they are getting instruction on how to complete their ePortfolios. Slightly over 25% of all respondents had at least one class where ePortfolios were covered, and over 10% had instruction in two courses. Student responses indicate they were receiving useful instruction on ePortfolios in a college skills course, an introductory composition course, an introductory engineering class, an engineering fundamentals course, and an introduction to Biological Sciences course. Programmatically, we believe students

Figure 1
*Suggested Improvements for Class Syllabi*
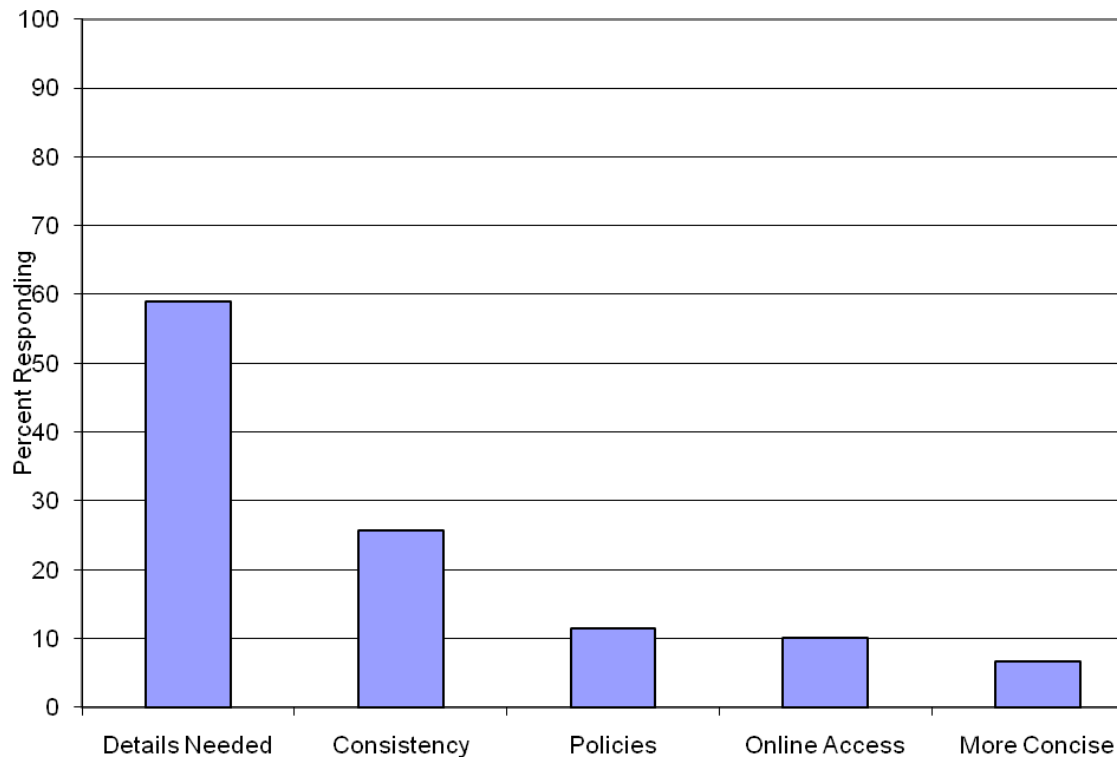


should encounter ePortfolio instruction as much as possible, so having a footprint in these introductory courses is a benefit.

**Discussion**

Syllabi are positive features of courses used on a routine basis by most students. They are necessary for student success, yet some attention to their design is required to insure effectiveness. Suggested improvements include increasing syllabus details and providing consistent syllabi for all courses. Availability of online syllabus templates has been explored because it was thought this would help standardize syllabi and make it easier for instructors to manage and edit syllabi (Abdous & He, 2008). Unfortunately, results of this approach indicate that even when given a template, a majority of faculty still created their syllabi from scratch, suggesting that faculty prefer to have control of syllabus design. It appears that if stricter guidelines are put into effect to standardize syllabi, faculty behavior should be considered when developing the message to campus.

Syllabi can help students become better learners if they focus on the student, what he or she needs to do to

prepare for the class, and how to study efficiently (Parkes & Harris, 2002). Faculty may not feel the need to remake syllabi every semester, which may be especially true for General Education courses (Eberly et al., 2001). This behavior was evident in our former syllabus repository and may be a contributing factor to why a majority of students (86%) do not report using it. A more robust syllabus repository has been created, one that is easy to use by both faculty and students, and one that is frequently updated and monitored.

The new syllabus repository has several features that should improve communication between faculty and students. Faculty upload syllabi for their courses in current and future semesters, or they may designate other department personnel to perform the task. Departmental coordinators have administrative access to identify which courses provide opportunities for students to satisfy specific Gen Ed competencies and generate artifacts for their ePortfolios. Students may search the database using categories including course, course level, instructor, Gen Ed competency, or keyword (provided by faculty at the time of upload). Because of the variety of features, this application should become well used by students as both a planning tool and a convenient way to access current

information. The address for the repository is www.clemson.edu/syllabus/.

Clemson's ePortfolio program is advertised as easy and helpful for documentation of student learning, but presently many students don't see the ePortfolio requirement as a benefit. Although not directly reflected in the data presented here, there was a general sense of confusion about ePortfolios during the early years of implementation. Students seeking help have reported that faculty teaching General Education courses were not focused on the ePortfolio, leading to many interpretations of what students should be doing. Students exhibit differential acceptance of the use of ePortfolios for Gen Ed assessment and for career planning: neither goal resonates with all students.

In a study in which a university implemented an ePortfolio program, a key to the success of the program was the high-level administrative support, for example by the president of the university (Reardon et al., 2005). For student use of ePortfolios for documenting Gen Ed to be effective at any university, there needs to be a wide range of support in many different groups on campus, most importantly by faculty and staff. Our results suggest that faculty should re-evaluate methods of encouraging students to complete their ePortfolios, including emphasizing ePortfolios in syllabi and discussing them in class. In order to accomplish this, faculty must be better informed about Gen Ed competencies and the role of ePortfolios in their assessment, and students need clearer information about enforcement of ePortfolio requirements.

Results of the present study should encourage new conversations about Gen Ed requirements, and may help others that are considering the use of electronic portfolios as an assessment strategy. Effective communication about the expectations contained within syllabi, and the critical role that syllabi can serve in promoting the learning process is important for any higher education environment. Class syllabi represent the simplest and most direct form of communication about the curriculum to our students, and as such deserve adequate attention from all campus stakeholders.

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