2006-2002: TEACHING PORTFOLIOS IN ACADEMIA – HOW ARE THEY USED?

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Abstract

This paper presents a study that focuses on how 16 colleges and universities across the United States have incorporated teaching portfolios into their institutions. The two most common types of teaching portfolios are described in terms of their purpose, audience, and what elements they might contain. Reasons for creating and maintaining teaching portfolios include documenting teaching for merit reviews, promotion and tenure cases, faculty job searches, sharing course designs, and promoting reflective practice. Because the process of creating a personal teaching portfolio can be challenging, many institutions provide guidance to graduate students and faculty who are developing teaching portfolios.

Introduction

The use of teaching portfolios in academia has increased in popularity in recent years. As colleges and universities continue to improve their commitment to teaching, the need for strategies to document teaching as a scholarly activity parallel to other scholarly activities such as research and service have in turn become increasingly important. Highly influential authors such as Selden[1] have proposed that faculty develop teaching portfolios as one way to achieve the goal of documenting teaching as a scholarly activity. Selden defines a faculty teaching portfolio as "a factual description of a professor's teaching strengths and accomplishments. It includes documents and materials which collectively suggest the scope and quality of a professor's teaching performance. It is to teaching what lists of publications, grants, and honors are to research and scholarship[1]."

The purpose of this paper is to present a study that focuses on how 16 colleges and universities across the United States have incorporated teaching portfolios into their institutions. Because the process of creating a personal teaching portfolio can be challenging, many institutions provide guidance to graduate students and faculty who are developing teaching portfolios. In order to provide the best resources for new engineering educators interested in creating teaching portfolios, we explored what help and support these various teaching portfolio initiatives provided for their clients. This paper will first describe the two most common types of teaching portfolios in terms of their purpose, audience, and what elements they might contain. Next, we will present four reasons why engineering faculty, post-docs, and graduate students might want to build teaching portfolios. We will then describe the methods we used to select the institutions in our study sample and obtain information about their teaching portfolio initiatives. Finally, we will present our findings and summarize them in Table 1, which may be found in the Appendix.

Background

While it is difficult to differentiate the type of teaching portfolio (e.g. persuasive vs. formative) from its purpose, the following two sections will attempt to do just that. The first section will define different types of teaching portfolios, discuss their potential audiences and describe how they might be useful to engineering educators. The second section will explore specific reasons

why you as an engineering educator might want or need to create a teaching portfolio, and how these teaching portfolios will look different based on their purpose.

<u>Different types of teaching portfolios</u>

The type of teaching portfolio that you create for any given situation depends on the purpose of the teaching portfolio and your target audience. Elements common to most teaching portfolios include some kind of statement, usually a teaching philosophy statement or a statement of teaching interests, and artifacts of your teaching that support the claims you have made in your statement. Some examples of teaching artifacts include but are not limited to example syllabi, exams, and assignments; evaluations, teaching awards, e-mails, letters of recommendation or support, or articles you have written about teaching. The scope, volume, and style of the material that you choose to include in your portfolio will depend greatly on what kind of teaching portfolio you are creating.

Evaluative/Persuasive Portfolios: An evaluative teaching portfolio, such as the teaching portfolio that you might submit as a required component of a promotion and tenure application, is extremely different from the developmental teaching portfolio that you might create in order to record the evolution of your teaching and reflect about the decisions that you have made in teaching courses and interacting with students[2]. In the former example, your portfolio will be a purposeful and concise selection of documents that demonstrate aspects of excellence in your teaching and provide solid evidence that these aspects are effective. The audience for this evaluative portfolio, also termed a persuasive teaching portfolio, may include faculty search committees, promotion and tenure committees, and campus administrators at all levels. This audience will most likely include non-engineers, so the language in your portfolio elements should be free of jargon and accessible to a wide audience.

Developmental/Formative Portfolios: At the other end of the spectrum, the audience for a developmental teaching portfolio (also termed a formative teaching portfolio) might be just you and perhaps a few friendly and trusted colleagues. In the latter example, your developmental teaching portfolio might include a teaching journal in which you write notes about the success of particular teaching strategies and decisions, document how you handled difficult situations, and write about potential situations and how you might approach them in your teaching[2]. This developmental, or formative teaching portfolio might also contain examples of all of the course documents that you developed for a particular course you designed, along with notes about how the assignments worked with your students and how you might modify these assignments in future offerings of the course. Developmental portfolios can also include feedback from peer evaluations and student evaluations, examples of student work, and recognition of your teaching in the form of honors and awards.

Creating and maintaining a developmental teaching portfolio can be a valuable exercise that allows you to reflect about your teaching with the goal of continually improving it over time. A developmental teaching portfolio can also be a valuable resource when you need to create an evaluative teaching portfolio. Because you have documented some or all of your teaching work in one place, creating an evaluative or persuasive portfolio becomes easier since you can pull the

best examples of evidence of excellence in teaching and documentation about your continual improvement as a teacher from your developmental portfolio into your evaluative portfolio.

<u>Why create a teaching portfolio?</u>

So why might engineering educators want to create and maintain teaching portfolios? Selden states that developing a teaching portfolio can help you document your teaching for merit reviews, promotion and tenure cases, faculty job searches, to share your course designs, and to promote reflective practice[1].

The first two reasons for creating a teaching portfolio, for promotion and tenure applications and faculty job searches, require an evaluative teaching portfolio in which you develop a persuasive and cohesive argument that you are an excellent teacher who approaches your teaching in a scholarly way. The fourth reason for creating a teaching portfolio, promoting reflective practice, requires a developmental portfolio in which you include an extremely broad selection of material and might include notes to yourself in which you record and reflect the decisions you have made about your teaching and how you might improve your teaching in the future. The third reason for creating a teaching portfolio, sharing your course designs with colleagues, is closer to the developmental end of the spectrum than a teaching portfolio created for tenure. However, your choice of what material to include in your course-based teaching portfolio will most likely be far more purposeful and selective than what you might choose to include in the teaching portfolio that you maintain with yourself as the only audience.

Merit Reviews, Promotion and Tenure: Creating a teaching portfolio documents your teaching for merit reviews and/or promotion and tenure cases so you can argue that your teaching is a highly intellectual, scholarly activity that should be counted and rewarded like all of your other scholarly activities, such as your research. Although many of the institutions in our sample did not specifically require a teaching portfolio as part of a promotion and tenure application, the requirements for the teaching component of promotion and tenure applications at the majority of the schools used language that was highly consistent with descriptions of evaluative teaching portfolios. Therefore, creating and maintaining a teaching portfolio is a way to prepare for an external review of your teaching by assembling documents that showcase and provide evidence of your teaching philosophy, teaching ideas and decisions, examples of course design, teaching awards, and scholarly papers.

Faculty Job Searches: If you are searching for that first faculty job, or looking for a better fit at a new institution, a teaching portfolio will document your teaching so you can show evidence of the level of teaching excellence that you need to get the kind of job you want. Most faculty job postings ask for a teaching philosophy statement or a statement of teaching interests. Some postings further ask for evidence of teaching excellence. Even if the job posting does not specifically ask you to submit a teaching portfolio, creating a teaching portfolio provides you with a method for thinking deeply about your teaching and documenting it. In addition, thinking about evidence of your teaching and gathering it in the form of artifacts will also prepare you to discuss your views in a job talk or answer questions about your teaching during an interview. Even if you do not choose to share your teaching portfolio with the search committee, your teaching philosophy statement and cover letter will be stronger because they allude to and are

backed up by the concrete and specific evidence of teaching excellence that the artifacts in your teaching portfolio demonstrate.

Documenting and Sharing Course Designs: A course-based teaching portfolio provides a way to document your course designs – because you have developed this intellectual property and you want to be able to share it like other intellectual property (such as research) that you generate. Archiving and saving course artifacts in a well organized, easily accessible format documents your course design and allows you to share it with others who might follow your work in a future offering. A course-based teaching portfolio provides a place to document your design decisions about a course so you don't forget them when you teach it again. It creates a way to archive your comments and reflections about how specific aspects of the course worked and is a place to document iterations that improve your course design. Taking the time to assemble course documents, design decisions, records of iterations and how these ideas worked with students provides a valuable resource for teaching assistants or colleagues who may be teaching the course in the future if you buy out of your teaching with grant money. This documentation has the added benefit of making sure that your valuable intellectual property of designing and developing the course is recognized and acknowledged by your peers in your department.

Promoting Reflective Practice: Documenting your teaching through a developmental teaching portfolio is a way of promoting reflective practice so that you can develop and document your growing expertise and continue to become a better teacher who approaches his/her teaching in a scholarly way. Elements to include in a portfolio documenting reflective practice might be notes about what worked well in your teaching and what did not work well, with ideas about how you might improve your teaching if the particular situation came up again. This level of reflective practice is analogous to a feedback control about your teaching, in which a thoughtful self-analysis of your responses to any given situation leads to continuous improvement in your teaching over time. In addition, this developmental or formative portfolio provides a place to document your teaching decisions and your reasons for making these decisions so that you don't forget what you did and why you did it. It also can help you get your ideas about teaching organized so you can see the body of your teaching work in one place. If you create and maintain a complete developmental portfolio that promotes reflective practice, you will be able to create an evaluative portfolio later by pulling the best of your ideas into a concise and persuasive document suitable for a wider audience.

So we know that as an educator, creating and maintaining teaching portfolios seems like a good idea and a powerful method for documenting and improving teaching. Teaching portfolios are extremely useful in a variety of contexts and are relevant to all educators, not only engineering educators. What we don't know is to what extent teaching portfolios are used in academia, what specific variations exist, how institutions have incorporated teaching portfolios into their instructional missions, and where to turn if you need to create a teaching portfolio but don't know how to start. We are particularly interested in how these questions about teaching portfolios are addressed in engineering education. The next section will describe our study, in which we gathered publicly available information to answer these questions about teaching portfolios. Subsequent sections will discuss our findings, the limitations of this study, and opportunities for future work.

Methods

In this study, we identified a sample of 16 institutions across the United States with teaching portfolio activities that illustrated the breadth of what is currently being done and gathered publicly available information about them through web searches. We then described these teaching portfolio activities in terms of their primary and secondary purpose, target clientele, format of the support activity, and whether the teaching portfolios were required, recommended, or optional. This list of institutions represents a purposeful sample of institutions that have teaching portfolio support activities rather than an exhaustive list of all institutions. Because the work of Selden[1] in promoting teaching portfolios in academia has been so seminal, we expect that many more institutions beyond those on this short list have extensive resources for faculty, graduate students, and post-docs who are interested in creating teaching portfolios.

A first search in Google using the search term 'teaching portfolio' yielded an overwhelming number of hits. To narrow the search, we identified the institutions that we included in this search through the following approaches. First, we asked colleagues at the partner institutions comprising our National Science Foundation funded engineering education research center about which institutions and groups they thought had a reputation for promoting faculty, graduate students, and post-docs to create teaching portfolios and providing significant resources for them to do so. We then circulated this list of institutions to the external advisory board for our NSF-funded center and asked board members to recommend other institutions to include on the list. We automatically included all 5 of our partner institutions at the NSF-funded center.

Once an initial list of institutions was identified, the search process consisted of finding the main webpage for each college or university and searching its website using the terms 'teaching portfolio' or 'engineering teaching portfolio'. We also searched each institution for classes that included teaching portfolios as assignments, and further looked for promotion and tenure guidelines for faculty. We added institutions to the list during the web search phase of this project when we found extensive teaching portfolio websites at institutions which were not on the initial list, especially if multiple institutions on our initial list linked to these institutions.

Because this study focused on teaching portfolio activities relevant to *engineering* faculty, graduate students, and post-docs, we focused our data collection exclusively on teaching portfolio activities available to faculty in science, technology, engineering and mathematics (STEM) fields in higher education. Some institutions had extensive resources online; for these institutions we focused on the 1-2 programs that we felt were most relevant and useful to engineering faculty and graduate students. Our search was limited to institutions in the United States and we did not profile any K-12 teacher education programs that require pre-service teachers to create teaching portfolios. We realize that future research about teaching portfolio activities available to engineering faculty, graduate students and post-docs could include contacting teaching and learning centers, as well as other campus units at specific institutions to find out about teaching portfolio activities that were not available on the web at the time of writing.

Findings

This section first discusses some general comments about the search for teaching portfolio activities at the institutions that we sampled. The results of this search are summarized in the Appendix as Table 1. The rest of this section will describe the findings represented in the table and discuss observations about the findings such as the purpose of the teaching portfolio activity, the format of the activity, and program influences. Specific information regarding the teaching portfolio activities at the institutions profiled in this section may be found through the websites cited in Table 1. Since the information available about the teaching portfolio activities at some institutions was much more extensive than others, this section includes findings that were not summarized in the table.

General Comments: The initial Google search for teaching portfolios yielded an overwhelming number of hits over a broad spectrum of teaching portfolio activities in multiple contexts. The majority of the links generated from this initial broad search focused on teaching portfolios used to prepare K-12 teachers for service; from this search it seems that teaching portfolios are becoming increasingly more common as an exit requirement for K-12 teacher certification programs in the United States. This initial search also found some institutions of higher education, mostly in Australia, that required faculty to create and maintain teaching portfolios. For example, RMIT University[3] in Melbourne, Australia has extensive online resources about academic portfolios, professional portfolios, teaching portfolios, and engineering teaching portfolios that are very relevant to engineering educators in the United States.

At several institutions, teaching portfolio activities were a component of Preparing Future Faculty programs or teaching preparation classes for graduate teaching assistants. Other institutions did not have resources about specific teaching portfolio activities on their website through any campus unit, but did have policies and guidelines for promotion and tenure that either required teaching portfolios as part of an application packet or described a list of requirements for the application packet that sounded essentially like a teaching portfolio, even though the term 'teaching portfolio' was not specifically used.

Table 1, which may be found in the Appendix, summarizes our findings about teaching portfolio activities at the 16 colleges and universities in our sample. The first column on the left lists the 16 colleges and universities. The second column lists the departmental or group affiliation for teaching portfolio activities, with the most current website for the department or group at the time of writing. The remaining columns give details about the primary and secondary stated purpose for the teaching portfolio activity, the target clientele, the format for any support activities, and whether teaching portfolios are required, recommended, or optional for faculty and graduate students involved in the program or activity.

Purpose of Teaching Portfolios: In this sample, 14 of the 16 institutions had publicly available information about the purpose of the teaching portfolios that they supported through the campus unit profiled in the second column of Table 1. Reflective practice was stated most often as the primary or secondary purpose for encouraging faculty and graduate students to create and maintain teaching portfolios with 11 of the 14 of the campus units listing this as a primary (5 units) or secondary (6 units) purpose. The next most frequently stated primary or secondary

purpose was assessment, for 9 out of these 14 institutions, with 4 institutions listing assessment as the primary purpose and 5 institutions listing assessment as the secondary purpose.

We defined teaching portfolios as instructional if they were used specifically in a formal classroom context, such as a teaching methods course required for graduate teaching assistants. Although reflective practice is inherently a form of self-instruction, we felt that it was important to differentiate the purpose of the teaching portfolios generated in a formal instructional context from those generated through reflective practice, which is exemplified by self-directed, lifelong learning. However, several of the programs that required graduate students to create teaching portfolios within an instructional context stated that they did so in order to introduce graduate student instructors to the idea of reflective practice. In our sample, 8 of the 14 institutions listed instruction as the primary or secondary purpose. Five campus units listed instruction as the primary purpose and 3 listed instruction as the secondary purpose for creating a teaching portfolio.

Institutions that required teaching portfolios as part of a promotion and tenure application usually listed assessment as the primary purpose of the portfolio. From their websites, Temple University, the University of Texas at El Paso, the University of Michigan at Ann Arbor, and Virginia Polytechnic Institute and State University required teaching portfolios as part of promotion and tenure applications in some or all campus units. Other institutions such as the University of Minnesota at Twin Cities and the University of Texas at Austin have published guidelines for promotion and tenure that strongly encourage faculty to create and maintain teaching portfolios. Several other institutions do not call the teaching section of a promotion and tenure package a 'teaching portfolio', but the descriptions of the required materials strongly resemble a teaching portfolio, by asking faculty to include a teaching statement and evidence of excellence in teaching. Many of these institutions required faculty members to assemble supporting documents such as examples of course syllabi and teaching evaluations in case they were needed during the review process.

For initiatives in which the primary stated purpose for creating teaching portfolios was reflective practice, then the teaching portfolio activities and resources were often housed in a campus teaching and learning center. Several teaching and learning centers in our sample have created support materials to help educators create teaching portfolios. The Center for Teaching Effectiveness in the University of Texas at Austin provides a particularly useful 13 page guidebook online[4]. Several of these teaching and learning centers offer extensive support services to educators interested in creating teaching portfolios through individual consultations with faculty developers.

Many of the teaching portfolio support activities for graduate students took place within the context of some type of Preparing Future Faculty (PFF) initiative. Teaching portfolios in programs like these were typically required of graduate students wishing to obtain certificates showing some level of proficiency in teaching at the college level. If creating a teaching portfolio was a component of instruction about teaching, the purpose of the program was usually stated as being instructional or a reflective practice exercise. However, some assessment of the teaching portfolios seemed to take place because the teaching portfolios were often posed to graduate

students as a way to prepare for faculty job searches, and in many cases graduate students were required to submit a teaching portfolio to complete the program and obtain a teaching certificate.

An exemplary PFF program may be found in the Graduate School at Howard University[5]. The PFF program at Howard University offers a "Faculty Roles and Responsibilities" seminar course through its PFF program in which graduate students are required to create a teaching portfolio. This course is co-taught by the Dean of the Graduate School and a team of faculty and staff. Through this and other workshops and seminar courses, doctoral students in Howard University's PFF program learn about the governance and functions of academic departments and institutions, designing courses, teaching techniques, solving instructional problems, and analyze case studies of ethical issues in academic life. Some doctoral students in the PFF program choose to complete the Graduate Certificate in College and University Faculty Preparation[6], in which they take several courses geared at preparing them for teaching and faculty careers and which includes a mentored teaching experience.

Format of Support Activities: The format of the support activities ranged from individual consultations with faculty developers to 1-2 year long teaching certificate programs for graduate students involving multiple seminar classes and a mentored teaching experience. Less clear from the websites was the level to which faculty and graduate students interacted with their peers as they went through the process of developing their teaching portfolios. At some institutions of higher education, this process of creating personal teaching portfolios has also become a community building opportunity as campuses develop networks of people who are interested in talking about teaching, and documenting and improving their teaching through self-reflection. A program for faculty at Texas A&M includes peer interactions in the support activities and offers term-long workshops with time for writing portfolio elements and discussing them with their peers and faculty developers built into the curriculum. The University of Florida also offers workshops for faculty that include a strong peer component. Teaching portfolio activities for graduate students which contained a peer component included programs at Stanford, the University of Michigan at Ann Arbor, the University of Florida at Gainesville, and the University of Washington at Seattle. We expect that many other institutions offer similar programs for supporting faculty and graduate students in developing teaching portfolios; however these resources were not available through campus websites.

Program Influences: The findings in this section are consistent with the work of Selden, the most widely cited author on teaching portfolios[7], who listed assessment and self-reflection as the first two reasons for faculty members to build teaching portfolios. Although using teaching portfolios as assessment tools can be useful if handled well, pitfalls can and do exist if campus administrations do not instantiate policies carefully. Felder and Brent[8] discuss strategies for successfully using teaching portfolios for assessment. These strategies include setting clear standards for outstanding and acceptable teaching in collaboration with the faculty, providing examples, support and clear expectations for what the teaching portfolio should contain, and having campus administrations demonstrate that teaching portfolios are taken into strong consideration when making decisions about faculty members. In addition, Felder and Brent[8] reiterate that teaching portfolios designed for assessment, and hence a wide audience, are significantly different in format than teaching portfolios designed primarily for self-reflection.

Additional resources about teaching portfolios may be found through the Carnegie Foundation for the Advancement of Teaching[9].

In summary, our analysis revealed three primary reasons why institutions of higher education encourage and support graduate students and faculty to develop and maintain teaching portfolios. These reasons include (a) for assessment – using teaching portfolios in applications for faculty jobs, or tenure and promotion; (b) as an instructional intervention – preparing graduate students for faculty careers using the Preparing Future Faculty (PFF) model; or (c) as a life-long learning tool – encouraging educators to become reflective practitioners. The majority of the teaching portfolio initiatives in our sample stated that their primary and secondary purpose for encouraging educators to create teaching portfolios was to encourage reflective practice. However, many of these institutions also encouraged faculty and graduate students to prepare teaching portfolios for some type of assessment, e.g. faculty job application, or tenure and promotion review. An increasing number of institutions are requiring faculty to submit teaching portfolios as part of merit review, tenure and promotion application packages. Our analysis also demonstrated the breadth of formats and activities used by these teaching portfolio initiatives. Some representative activities to help graduate students and faculty create teaching portfolios included workshops, classes or programs taught or facilitated by faculty or staff; guidance through online resources; peer discussions about teaching; and peer review of teaching portfolio elements.

Limitations and Future Studies

The information about teaching portfolio activities and resources in this paper was gathered exclusively from publicly available sources on the web. The institutions in our sample represented a purposeful selection rather than an exhaustive list of all institutions. Therefore, we expect that many more teaching portfolio activities exist at the institutions in our sample and that many institutions beyond our sample offer faculty and graduate students extensive support for creating and maintaining teaching portfolios.

In our sample, institutions which required faculty to submit a teaching portfolio for promotion and tenure had more online resources available than institutions that did not require or recommend that faculty create and maintain teaching portfolios. These online resources included examples of teaching portfolios and information about consultations with faculty developers regarding teaching portfolios. We found little information posted online regarding the extent to which STEM faculty actually engage in teaching portfolio activities at institutions recommending teaching portfolios rather than requiring them for promotion and tenure. Further studies could determine the extent of STEM faculty involvement in these activities at institutions that do not require faculty to prepare teaching portfolios.

We were also unable to find consistent information about the level of peer involvement in the teaching portfolio activities at the institutions in our sample. How peer interactions in the form of peer discussions and peer review contribute to the stated goals of many portfolio programs is an opportunity for further study. Preliminary studies[10] indicate that peer activities may have the following benefits. Teaching portfolio activities in which the purpose of the teaching portfolio is assessment may benefit from peer review because peers are a 'safe' audience who can provide

useful feedback to improve teaching portfolios before they have to count in a high stakes situation, such as a faculty job search or promotion and tenure review. For the goal of instruction, discussing teaching with peers and sharing ideas about teaching through review and discussion of teaching portfolio elements may afford learning opportunities. Reflective practice in a group setting may also afford learning activities as individuals learn each other's processes for analyzing one's own teaching in a scholarly, systematic way with the idea of continual improvement over time. Peer review activities during some teaching portfolio support activities for graduate students and post-docs were found to be highly coupled with discussions in which participants shared their ideas and strategies for teaching[11]. Therefore, peer interactions during teaching portfolio support activities may contribute to participant awareness of design decisions about teaching, in addition to providing an opportunity for participants to articulate and document teacher thinking, i.e. the intellectual property related to teaching.

Future studies could also include interviews with administrators, faculty, or staff at targeted institutions to profile certain teaching portfolio initiatives in more detail. Alternatively, increasing the sample size by identifying a broader selection of institutions that encourage or facilitate STEM graduate students, post-docs, or faculty to create and maintain teaching portfolios would help determine the extent to which teaching portfolios are encouraged or required in STEM higher education.

Conclusions

In this paper, we profiled teaching portfolio activities available to faculty, graduate students, and post-docs in science, technology, engineering and mathematics (STEM) fields at 16 colleges and universities across the United States. We gathered information about these activities exclusively though publicly available resources on the web; therefore these results are a sample of activities rather than an exhaustive list. Some reasons why engineering educators might be motivated to create and maintain teaching portfolios are to prepare for merit reviews, and promotion and tenure applications, for faculty job searches, as a way to share intellectual property related to teaching, and to promote reflective practice with the idea of continually improving teaching over time.

Because the process of creating a personal teaching portfolio can be challenging, several of the institutions in our sample provide guidance to graduate students and faculty who are developing teaching portfolios. In order to provide the best resources for new engineering educators interested in creating teaching portfolios, we explored what help and support these various teaching portfolio initiatives provided for their clients and summarized our findings from 16 colleges and universities in Table 1 of the Appendix. The primary and secondary stated purpose for a majority of the teaching portfolio activities in our sample was reflective practice; however many of these institutions also required faculty to submit a teaching portfolio or its equivalent as part of tenure and promotion applications.

As we look across the results of this study, the majority of the institutions in our sample encourage and support faculty, graduate students, and post-docs in creating teaching portfolios. Furthermore, a significant number of these institutions require faculty to submit teaching portfolios as part of merit reviews and promotion and tenure applications.

If you are interested in creating and maintaining your own teaching portfolio, we hope that this information might help you get started. If you are a faculty developer or administrator interested in supporting the use of teaching portfolios at your institution, we hope that this information may give you some ideas for how others have developed similar programs. For engineering educators, developing a teaching portfolio and maintaining it will help you learn to become a better teacher, prepare you to showcase the excellence of your teaching to your colleagues, department, and institution, and help you gain recognition for the scholarship of your teaching. As Richard Felder said about teaching portfolios, "If you've got it, flaunt it[8]."

Acknowledgments

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Appendix

Table 1: Teaching portfolio information by university. This table includes websites for campus organizations supporting teaching portfolios, the primary and secondary stated purpose of the teaching portfolio, the target clientele, format of the teaching portfolio support, and whether the teaching portfolios are required, recommended, or completely optional. Website information is subject to change; these links were active as of January 12, 2006.

University	Departmental Affiliation of Teaching Portfolio Activity and Website	Purpose of teaching portfolio Primary / Secondary	Target Clientele	Format of support activity	Are Teaching Portfolios Required, Recommended, or Optional?
Carnegie Mellon University	Eberly Center for Teaching Excellence http://www.cmu.edu/teaching/eberlycenter/index.html	Instructional/ Assessment	Faculty and Graduate students	Faculty, Graduate students - individual consultations	Faculty, Graduate students - teaching portfolios optional
Colorado School of Mines	Center for Engineering Education http://www.mines.edu/research/cee/index.shtml	Information unavailable	Graduate students, Faculty	Information unavailable	Information unavailable
Howard University	Graduate School - Preparing Future Faculty Program http://www.gs.howard.edu/pff/default.htm	Instructional/ Reflective Practice	Graduate students	Graduate students - semester long class in PFF program	Graduate students - teaching portfolio required to complete teaching certification in PFF program
North Carolina State University	Faculty Center for Teaching and Learning http://www.ncsu.edu/fctl/Programs/Evaluation_of_Teaching_and_Learning/Teaching_and_Course_Portfolios/ Graduate School - Preparing the Professoriate http://www.fis.ncsu.edu/grad/ptp/prethepr.htm	Instructional/ Assessment	Faculty and Graduate students	Faculty - 1 week workshop, individual consultations; Graduate students - 1 year mentoring opportunity	Faculty - teaching portfolios optional; Graduate students - teaching portfolio required to complete teaching certification program
Oklahoma State University - Stillwater, OK	OSU Institute for Teaching & Learning Excellence http://itle.okstate.edu/Default.htm	Instructional/ Reflective Practice	Faculty	Faculty - 2 hour workshop	Faculty - teaching portfolios optional

University	Departmental Affiliation of Teaching Portfolio Activity and Website	Purpose of teaching portfolio Primary / Secondary	Target Clientele	Format of support activity	Are Teaching Portfolios Required, Recommended, or Optional?
Purdue University	Center for Instructional Excellence http://www.cie.purdue.edu/aboutus/mission.cfm	Assessment/ Instructional	Graduate students	Graduate students 1-2 year certification program; individual consultations about teaching portfolio are required as part of program	Graduate students - teaching portfolio required to complete program
Stanford University	Center for Teaching and Learning http://ctl.stanford.edu/TA/workshop/portfolios_f05.html	Reflective Practice/ Instructional	Graduate students	Graduate students - 3 week workshop meeting once/week for 1.5 hours	Graduate students - teaching portfolios recommended
Temple University	Awareness of Teaching & Teaching Improvement Center (ATTIC) http://www.temple.edu/ATTIC/awards/awards.html	Assessment/ Reflective Practice	Faculty and Graduate students	Some guidelines on website about teaching portfolio format. Additional guidelines for merit review, promotion and tenure suggest that two colleges within Temple University require teaching portfolios in these applications	Faculty and Graduate students - teaching portfolios required component of teaching award application
Texas A&M University	Center for Teaching Excellence http://cte.tamu.edu/ Graduate Teaching Academy http://cte.tamu.edu/gta/index.php	Reflective Practice/ Assessment	Faculty and Graduate students	Graduate Teaching Academy - 1 year leading to certificate Faculty Teaching Portfolios - workshops and individual consultations	Faculty - teaching portfolio strongly recommended Graduate students - optional
University of Florida – Gainesville, FL	University Center for Excellence in Teaching http://www.ucet.ufl.edu/index.html Society of Women Engineers - Student Chapter http://www.ees.ufl.edu/announcements/portfolio.asp	Assessment/ Reflective Practice	Faculty and Graduate students	Faculty - many campus department require teaching portfolio as part of tenure and promotion applications - individual consultations, peer review of teaching workshops available through University Center for Excellence in Teaching Graduate students - optional 8 week workshop	Faculty - teaching portfolio recommended, required for promotion and tenure in some units Graduate students - optional

University	Departmental Affiliation of Teaching Portfolio Activity and Website	Purpose of teaching portfolio Primary / Secondary	Target Clientele	Format of support activity	Are Teaching Portfolios Required, Recommended, or Optional?
University of Michigan - Ann Arbor, MI	Center for Research on Learning and Teaching http://www.engin.umich.edu/teaching/crltnorth/ Center for Research on Learning and Teaching/Rackham Graduate School http://www.crlt.umich.edu/gsis/pff.html	Reflective Practice/ Assessment	Faculty and Graduate students	Faculty - 2 hour workshop, individual consultations Graduate students - 5 week workshop	Faculty - teaching portfolio is required component of tenure and promotion applications for College of Engineering Graduate students - teaching portfolio required for Michigan Teaching Fellow certification
University of Minnesota – Twin Cities, MN	Center for Teaching and Learning Services - Graduate Student Programs http://www1.umn.edu/ohr/teachlearn/pff/courses/index.html	Instructional/ Reflective Practice	Graduate students	Graduate students - semester long course with certificate	Faculty - tenure and promotion guidelines encourage faculty members to create and maintain teaching portfolios Graduate students - teaching portfolio required to complete program and obtain certificate
University of Texas - Austin, TX	Center for Teaching Effectiveness (UT-Austin) http://www.utexas.edu/academic/cte/ Faculty Innovation Center (UT-College of Engineering) http://fic.engr.utexas.edu/index.cfm	Reflective Practice/ Assessment	Faculty and Graduate students	Extensive web resources for faculty and graduate students, individual consultations offered through teaching and learning centers for entire campus and college of engineering	Faculty - College of Engineering strongly recommends that faculty create and maintain teaching portfolios Graduate students - optional, encouraged to create and maintain teaching portfolio
University of Texas - El Paso, TX	Center for Effective Learning and Teaching http://sunconference.utep.edu/CETaL/resources/portfolios/map.htm	Assessment/ Reflective Practice	Faculty	Extensive web resources for faculty and graduate students, individual consultations offered through teaching and learning center	Faculty - teaching portfolio required component of promotion and tenure applications

University	Departmental Affiliation of Teaching Portfolio Activity and Website	Purpose of teaching portfolio Primary / Secondary	Target Clientele	Format of support activity	Are Teaching Portfolios Required, Recommended, or Optional?
Virginia Polytechnic Institute and State University	Center for Excellence in Undergraduate Teaching http://www.ceut.vt.edu/index.htm	Information unavailable	Faculty and Graduate students	Faculty and Graduate students - individual consultations through campus teaching and learning centers	Faculty - teaching portfolio is required component of promotion and tenure applications Graduate students - unknown, information not available on website
University of Washington - Seattle, WA	Center for Engineering Learning and Teaching http://depts.washington.edu/celtweb/ Center for Instructional Development and Research http://depts.washington.edu/cidrweb/PortfolioTools.htm Center for the Advancement of Engineering Education -Engineering Teaching Portfolio Program http://www.engr.washington.edu/cae/etpp-sessions.html	Reflective Practice/ Instructional	Faculty and Graduate students	Faculty - extensive resources on web, individual consultations through Center for Engineering Learning and Teaching and the Center for Instructional Development and Research Graduate students - 8 week workshop for science and engineering graduate students and post-docs offered through Center for the Advancement of Engineering Education	Faculty - College of Engineering merit review, promotion and tenure guidelines require teaching portfolio elements Graduate students - teaching portfolios optional