



JOURNAL OF THE NACAA

ISSN 2158-9429

VOLUME 15, ISSUE 1 – JUNE, 2022

Editor: Donald A. Llewellyn

Zwahlen, R., Extension Assistant Professor, Utah State University Extension

Powell, J., Landscape Architecture and Environmental Planning Specialist, Utah State University Extension

Design 4 Everyone: Creating an Online Residential Landscape Design Course

Abstract

Instruction aiding homeowners in landscape design has been an unmet, but growing need in Extension programming. The new Design 4 Everyone project created a successful, self-paced, online course guiding participants through a structured, incremental approach to landscape design; helping them confidently utilize existing Extension resources to implement attractive and sustainable landscapes.

Introduction

Like many other land grant universities, Utah State University has developed excellent resources covering individual components of home landscape development including turf maintenance, plant selection, and soil improvement strategies. However, a program providing homeowners a simple framework to develop a cohesive landscape design that subsequently inspires participants to implement research-based best practices was an unfilled area of Extension programming within the state of Utah and the nation.

Another challenge faced by homeowners is the lack of professional landscape designers working on residential projects. Particularly in rural counties, it can be difficult to find landscape design resources within a budget and timeline homeowners need. Without guidance, many homeowners default to the traditional, uninspiring, and often

resource squandering landscape forms around them (Nasauer et al., 2009). County Extension faculty are also routinely asked for advice on issues related to residential landscape design.

Designing your own landscape can be an exciting process that is both creative as well as functional (Hannebaum, 2001). Conversely, for many people, landscape design can also be intimidating, overwhelming, and is sometimes beyond the budget of homeowners.

Professional landscape architects and designers are traditionally taught a step-by-step process. This approach helps them thoroughly understand a location, establish project goals, and finally apply design principles to create landscapes that are both functional and aesthetically pleasing (Booth & Hiss, 2001).

The Design 4 Everyone online course was envisioned to connect homeowners to the same design process taught to landscape architecture students. The intent was to teach the process of design to establish a framework within which students could utilize existing Extension fact sheets, publications, and resources.

The course curriculum was developed to transcend theoretical design concepts and show on-the-ground examples of each step in the design process. The result is an online course that uses video, images, and text to demystify the design process and make it accessible to homeowners interested in modifying their landscapes.

Objectives

The target audience for this project is residential homeowners interested in either designing a new landscape or making improvements to their existing landscape. The intention of the course is to teach valuable skills to those interested in installing their own landscapes or working with a contractor.

As the role and prominence of Extension's online learning offerings have increased nationwide during the COVID-19 pandemic, conveying complex subject matter in new formats is a challenge being faced by many Extension professionals. The aim of this

project is to develop an online curriculum that allows students to learn general principles and apply them to situations specific to their individual locations.

Methods

Ultimately an online landscape design course entitled Design 4 Everyone was developed. The course distills the landscape design process into four steps. After finding no similar online Extension programs filling this need, we developed the pedagogy of the course based on the design steps embedded in the undergraduate landscape architecture curriculum of the Landscape Architecture and Environmental Planning Department at Utah State University. The detailed curriculum plan created by the team during the initial stages of the project guided the remainder of the course content development.

Course pedagogy utilizes an incremental, step-by-step approach catered to audiences interested in both adapting an existing landscape as well as owners of newly built homes intent on designing and/or installing a new residential landscape. The course pedagogy structure teaches each principle, then demonstrates its application on an actual case study site.

A series of drawings, diagrams, recordings, and videos were created to clearly illustrate the process. These were then incorporated into a self-paced online course.

The course guides participants through a four-step design process that aids them in creating their own site base maps, conducting a site inventory and analysis, creating a vision statement and site program, creating functional and bubble diagrams, and ultimately developing their own landscape plans. The design steps in the course are organized into the following modules and associated learning objectives:

Module 1 - Knowing what you have

Learning Objectives:

- Students learn measuring techniques and drawing conventions such as scale to create a base map of their own site.

- Students learn what items to include in a site inventory, and a methodology for conducting a site analysis (Reid, 2002).

Tasks and Assignments:

- Students are required to submit a base map and site inventory and analysis of their individual site.

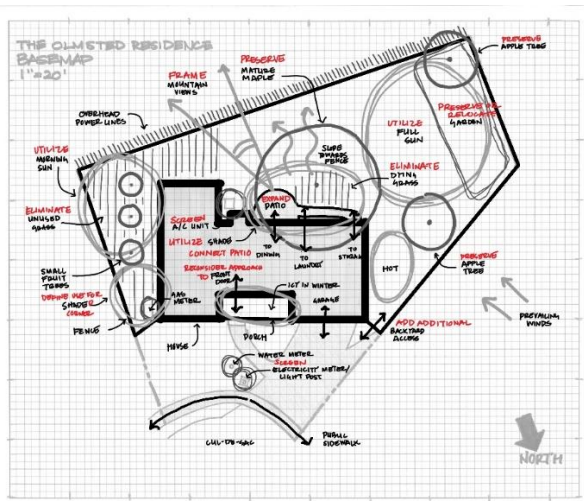


Figure 1. Example site inventory and analysis diagram used in the course to illustrate this step on the case study site.

Module 2 - Knowing what you want

Learning Objectives:

- Students are required to develop a vision statement for their site and develop a series of goals that accomplish their given strategy.
- Students use these goals to establish a list of program components and develop a visual “mood board” and a functional diagram (Booth, 1989).

Tasks and Assignments:

- Students are required to submit a written summary of their design goals and strategy, a design components list, a mood board, and a completed functional diagram.

Module 3 - Making it yours (principles and elements of design)

Learning Objectives:

- Students are required to develop loose conceptual design alternatives using the bubble diagram method (Lin, 1993).
- Students are then introduced to seventeen principles of design (Simonds, 1961).
- Students apply these principles to their conceptual design to create a final schematic landscape design.

Tasks and Assignments:

- Students are required to submit a schematic landscape plan.

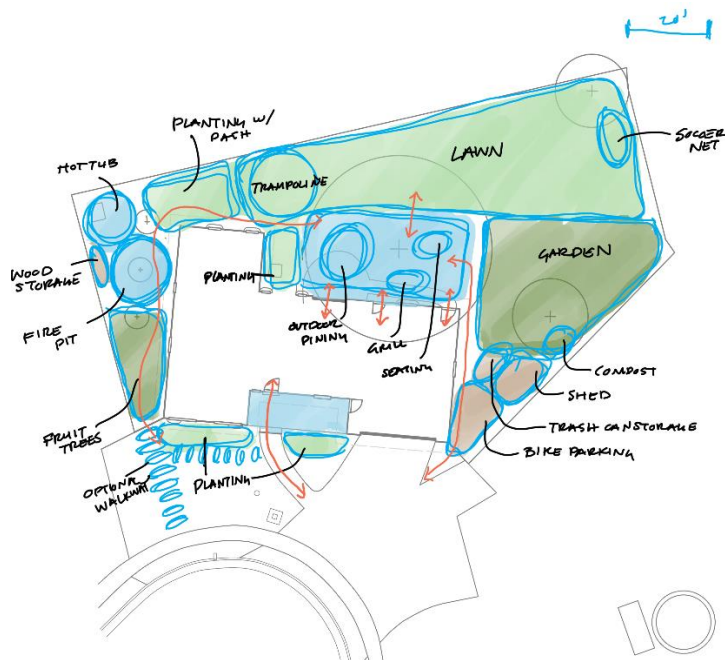


Figure 2. One of the design concept examples shared in the course to show how quick bubbles can be used to explore spatial arrangements options.

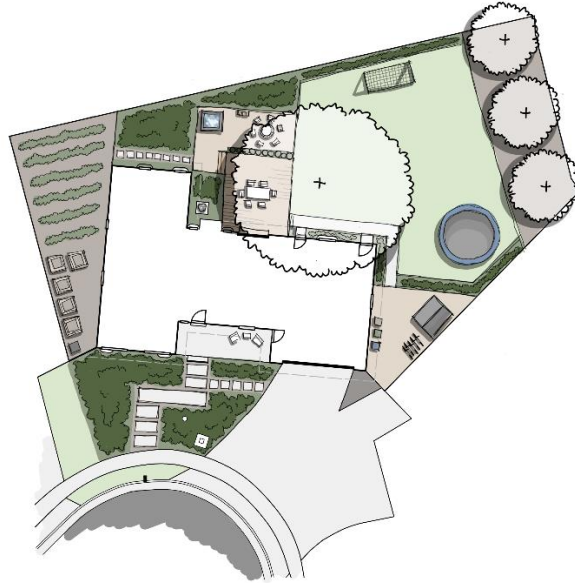


Figure 3. A completed schematic design for the case study landscape used in the course. The design is a culmination of the previous design steps.

Module 4 - Making it a reality

Learning Objectives:

- Students are introduced to the principles of proper site grading and drainage (Ingels & Bridwell, 2004), plant classification, plant selection, and planting design (Bertauski, 2019).
- Students are also taught about the technique of hydro-zoning.

Tasks and Assignments:

- Students are required to submit a conceptual drainage plan.

In addition to the course content, links are included throughout the course pointing students to existing Extension publications helpful to their own landscape design and installation process. The assignments and associated resources in each module are included to inspire participant engagement through each step of the design process.

The course engages students in the design process by having them apply each step to their actual property. Each step is paired with a series of tasks that require students to develop a personal landscape design using the process on their own property. The online structure of the course allows students to work at their own pace and within their own homes. However, the course provides optional in-person contact through the course hosting platform to answer questions and offer advice. After successfully completing all the course modules and associated tasks on their own property, students are invited to schedule a short, online personal consultation with trained Extension faculty to receive feedback on the results of the course tasks and their final design proposal.

Partnering with Utah State University's Landscape Architecture and Environmental Planning (LAEP) Department was invaluable for developing the curriculum and content for the project. We utilized the LAEP Department's drone and mapping software to analyze each case study site. We also used LAEP's design studio, video and audio equipment, and student interns to create illustrations and diagrams used throughout the course. We also received a grant from USU Extension that facilitated a partnership with the Extension instructional design team to help edit and create a functional and attractive online course.

Results

Since the course's launch in May of 2021, nearly 300 people have enrolled. The Design 4 Everyone course has consistently been one of Utah State University's top selling online courses throughout 2021. This exciting reaction affirms the development team's

uncovering homeowners' unmet desire for training to guide them through the steps in the design process on their own property.

The design process presented in the online course provides participants with the knowledge to produce their own residential landscape designs. The course also helps them to confidently utilize existing USU Extension resources to assist them in the implementation of their designs.

The course invites participants to complete a post-course evaluation to assess if the course is meeting learning outcomes and has provided valuable feedback for the course development team. At this time only two participants have completed the course evaluation. This low proportion of course completions prompted the design team to engage the course platform analytics to assess at what point participants were abandoning the course content.

The design team found that although course participants were enrolling in the course, only 9.2% of participants successfully completed the tasks assigned in Module 1. Furthermore, 8.3% of all participants successfully completed module 1, but failed to complete the requirements in module 2. 1.3% of participants successfully completed the tasks assigned in module 2, but failed to complete the requirements in module 3, and finally 1.3% of participants completed module 3, but did not complete the requirements in module 4. The design team's observation of this precipitous decline in the completion of even the initial module resulted in several modifications to the messaging, structure, as well as the price of the course.

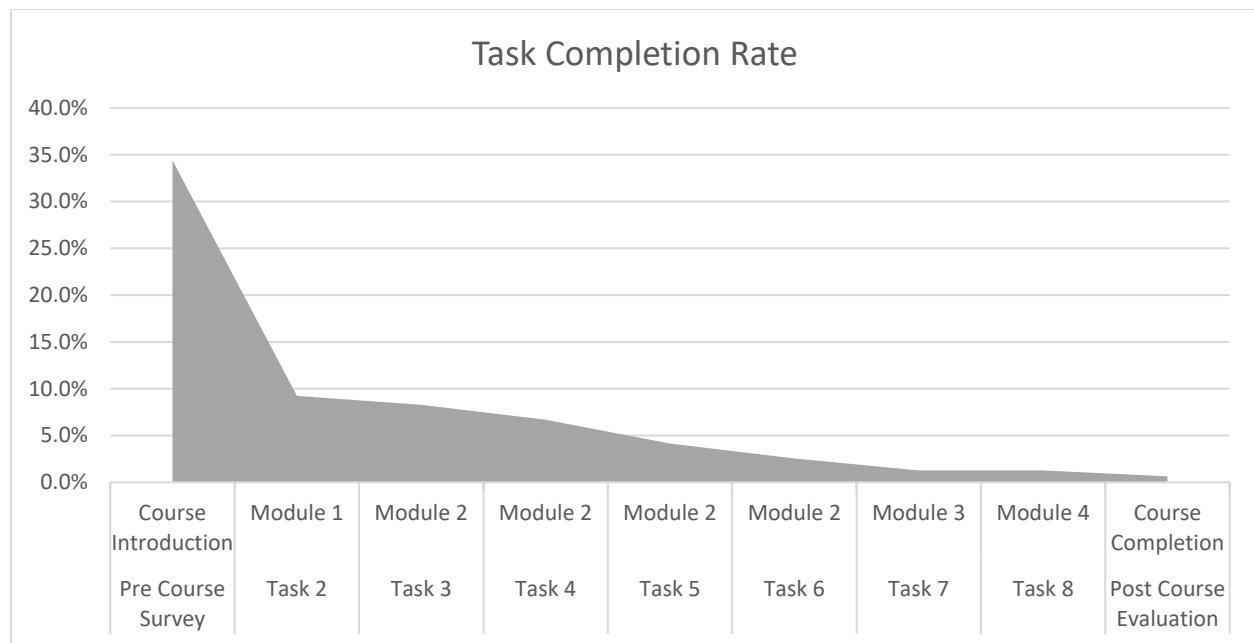


Figure 4. Chart demonstrating participants' completion rate across tasks and associated modules

Discussion

The Design 4 Everyone online residential design course was created to guide students through the landscape design process. Applying the design process to an individual site requires iteration and personal experimentation outside the confines of a course. The course established required tasks that operationalize the course content but in turn require students to spend an estimated 10-15 hours engaging the course content and at least that amount of time completing the course tasks.

After reviewing the course participation versus completion numbers across each module the steep decline observed after the first module indicated participants were not prepared for the effort and time commitment required to progress through the course. The design team felt that the original \$20.00 course fee sent a message to consumers that the course would require a minimal time commitment and effort to complete. A fee to access the course was established to cover the required course hosting platform fee

as well as improve participant's commitment to engagement. This incorrect price signal appears to be attracting interested students who then fail to complete a course more complex and time consuming than the price leads them to believe.

Rather than simply increase the price to address this issue, the design team decided to revise the course title to "Design 4 Everyone: Advanced Landscape Design Process" and adjusted the course description to provide a more robust explanation of the course content and expected participant commitment. The course fee for the Advanced Landscape Design Process was increased to \$99.00 and the design team is currently creating a basics of residential landscape design course that retains the original \$20.00 fee. This basic course will require an estimated two to four hours to engage the course content and will not require the completion of any tasks nor will it provide opportunities for instructor feedback and consultation. Interestingly in the three months since increasing the course fee monthly enrollment has fallen from an average of 11 enrollments per month to just 1 per month. This decline indicates online course participants interested in residential landscape design may desire a course that is quick, and inexpensive, even at the expense of eliminating the tasks and instructor interaction that encourages actualization of the course content.

For those few (0.6% of total participants, n=2) who did complete the post-course evaluation, the results have been overwhelmingly positive. All respondents strongly agreed that the information presented in the course was considered valuable and they felt more qualified to create their own landscape design. When respondents were asked about their knowledge regarding topics covered before the course compared with their knowledge on the same topics after the course students reported an increase in knowledge.

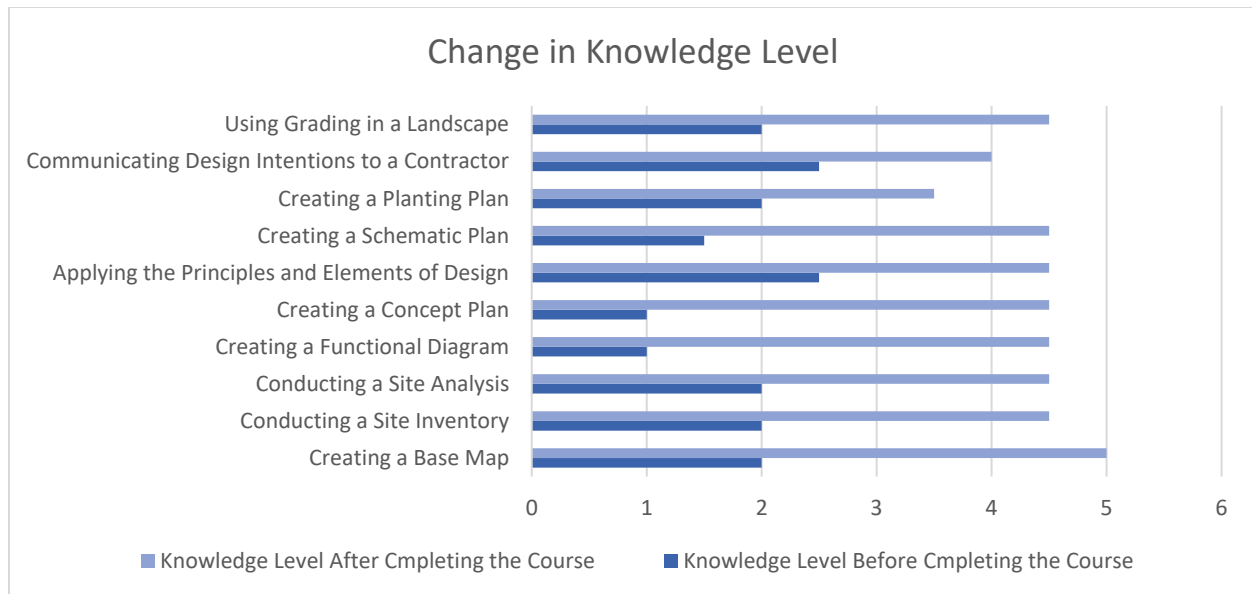


Figure 5. Chart demonstrating participants’ reported change in knowledge following completion of the course.

Conclusions

The Design 4 Everyone online course is attempting to allow participants new access to the process of landscape design, with the goal to empower them to create informed design solutions on their own sites. Course participation and feedback indicate that this kind of course is valued and impactful. However, the initial launch of the Design 4 Everyone course provides insights into just how much participants want to invest in both finances and time into engaging the complexities of the design process. The insights gained from the initial launch provided an exciting opportunity to tailor the content to better meet the needs of the audience interested in the course content into a basic and an advanced residential landscape design course.

Using an approach rooted in the same design process taught in the course, the Extension team will continue to understand, propose, seek feedback, and make adjustments to further refine this course. The team will continue to utilize course analytics and participant feedback to refine the course content, adjust the course price

point, and modify the advertising approach to better align the course with the needs of interested participants.

References

- Bertauski, T. (2019).** Designing the Landscape: An Introductory Guide for the Landscape Designer, Second Edition (2nd ed.). Waveland Press, Inc.
- Booth, N. K. (1989).** Basic Elements of Landscape Architectural Design (First Edition). Waveland Press, Inc.
- Booth, N. K., & Hiss, J. E. (2001).** Residential Landscape Architecture: Design Process for the Private Residence (3rd Edition) (Subsequent ed.). Prentice Hall.
- Hannebaum, L. (2001).** Landscape Design: A Practical Approach (5th Edition) (5th ed.). Pearson.
- Ingels, J. E., & Bridwell, F. M. (2004).** Landscaping: Principles and Practices (6th ed.). Cengage Learning.
- Lin, M. W. (1993).** Drawing and Designing with Confidence: A Step-by-Step Guide (1st ed.). Wiley.
- Nassauer, J. I., Wang, Z., & Dayrell, E. (2009).** What will the neighbors think? Cultural norms and ecological design. *Landscape and Urban Planning*, 92(3–4), 282–292.
<https://doi.org/10.1016/j.landurbplan.2009.05.010>
- Reid, G. (2002).** Landscape Graphics: Plan, Section, and Perspective Drawing of Landscape Spaces (First ed.). Watson-Guption.
- Simonds, J. O. (1961).** *Landscape Architecture: The Shaping of Man's Natural Environment*. McGraw-Hill.