How to create a Process

This is a simple guide outlining the steps needed to develop a well-crafted *process* (a series of actions or steps executed to achieve a particular end). Watch [5 Stages of the Design Thinking Process](https://example.com) for an example of how to design a solution.

**Note:** Before you ever start designing a process, serious thought and discussion should be taken on whether or not an automated solution is even needed. This document does NOT address that critical aspect of design. The assumption here is that thorough discussion has happened, and a solution has been determined to be needed.

Outline
The steps to developing a process are listed below.

- Understand
- Avoid Assumptions
- Acknowledge your Limitations
- Research
- Visualize the Goal
- Simplify
- Inspect
- Confirm
- Adopt/Modify
- Build
- Test and Feedback

**Understand**
You need to understand the issue you’re trying to solve. This requires investigation. Interview stakeholders and try to fully understand the issue.

- What is the need?
- Who will the process serve?
- What are the challenges?

You will really need to pull information from the key stakeholders. When they think of the process, they always do so in general terms. That’s not good enough. You need every specific step and exception to be explained to you in great detail.

**Avoid Assumptions**
Whether instructed by a supervisor or on their own, *Designers* often make assumptions about how to deal with an issue (e.g. create a fillable PDF and have them email it to us). Don’t assume certain steps “must” be done a certain way from the beginning. Be flexible.
Acknowledge your limitations
Designers default to using the tools that they already know (whether or not they’re the right solution). However, sometimes it is far better to commit to investigating other solutions or other tools. Reach out to other individuals and campus offices that might provide guidance on tools to consider. If a better tool is identified, consider investing time in learning how to use the tool.

Research
Using online resources and campus human resources (like CTS and CCI staff), consider possible platforms/tools that might be needed to develop a solution. Sometimes doing research leads you to a ready-made solution that you can copy and deploy (without having to build one yourself).

Visualize the Goal
Create a mock of the process. This can be an outline or diagram. It should depict the entire process (each step and any exception) and the tools (or specific features) needed for each part of the solution. Exceptions are the outliers in the automated system. Those things that are NOT core to the process, but come up now and again. Sometimes, it is better to have a solution that is easy to build and deploy that can only deal with 95% of the process. The remaining 5% are outliers and can be dealt with manually. In a perfect design, everything can be dealt with through the created system, but often the effort required to do this is cost/time prohibitive.

Simplify
If possible, try to simplify. Focus on the core process and try limiting the exceptions (i.e. have the exceptions done manually and keep them out of the automated process).

Inspect
Carefully walk through every step of the process looking for flaws or missing (skipped) steps. If possible, have a collaborator review the solution for feedback. Sometimes, having a user that is completely unfamiliar with a process can identify confusing or unclear parts of the solution.

Confirm
Once you have a defined process, confirm with the key stakeholders that the process meets their needs. You will need to really prod them to consider every step carefully. Inevitably, they have neglected to give you important bits of information (often exceptions) that need to be considered.

Adopt/Modify
Often a tool has already been created that you can use with minor changes. Now that you have a clear understanding of the process, consider finding and using a preconstructed solution instead of creating one from scratch. Even when you have a tool in mind, there are often user communities for that tool that have templates or other resources that they are willing to share.

Build
If you are ready to craft your solution, use the process developed in the visualization (mock), to build the solution (or have it built).
Test and Feedback
Run live tests and gather feedback from the end-users. Use the feedback to make adjustments to the design. Make sure to test every feature of the design (try to break it). Inevitably, there will be some flaws and it is better to find them early, while the design is front of mind, than to deploy the solution and have to back track later when the flaw is revealed.