Creating the Pro Forma List of KSAs

The following are recommended strategies for developing a pro forma KSA list.

* Incorporate multiple sources of information, if possible.
* Identify similar programs at other colleges and start with the student learning outcomes of the courses in those programs.
* Identify and use national standards, if they exist.
* Involve a small number of employers in developing the list.
* Use a Google search to find KSAs.
* Note: Skills databases such as O\*NET Online are good resources but recognize that they provide static KSAs for existing job titles and are not future-facing.
* Once you have created the pro forma list of KSAs, have it reviewed by key campus personnel and at least two employers prior to the meeting. This initial list is the best guess at the possible KSAs the employers will want. Providing the list shortens the time needed for evaluation.
* Do not assume you know what employers want in graduates. Let them tell you.
* Remember that the pro forma KSA list shows what *faculty* think the KSAs should include.
  + The list serves as a starting point for discussion. Business representatives can add, change, or delete items during the meeting.
  + The list should contain no more than 75–100 items, maybe fewer. Rule of thumb: 20–25 KSAs per each hour of meeting. (A two-hour meeting can cover 40–50 KSAs, a four-hour meeting can cover 80–100, and so on.)
  + The list will focus mainly on the *K* in *KSA*—knowledge—especially in new programs.

These skills can be loaded into the KSA spreadsheet as a starting point. You might also look at the learning outcomes for relevant course offerings at your college (and other colleges) and add those to the KSA spreadsheet.

The outcomes on a college website might resemble the following:

* ***CNC Production Technician*** is a well-rounded approach to becoming a CNC Technician. We teach the skills necessary for students to become qualified set-up technicians. Students are taught the basics of G-Code programming, proper M-Code usage, and the required steps to efficiently set fixture and tool offsets. Students create their own CNC programs and DNC to the proper machine tool. An excellent overall knowledge of CNC Controls is achieved by working on several different brand name controls. Overall, students will be proficient at programming, set-up, operation, editing, and part inspection.
* ***Program Learning Outcomes***

Graduates will be able to:

* 1. Apply basic safety practices in the machine shop.
  2. Interpret industrial/engineering drawings.
  3. Apply precision measuring methods to part inspection.
  4. Perform basic machine tool equipment set-up and operation.
  5. Perform programming, set-up, and operations of CNC machine tools.