APRIL 6, 2024

DRAFTING ADVISORY BOARD MEMBERS /ATTENDEES

Michael Toschi
  Michael Toschi International ~Hand-made Italian Shoes & Clothes
Joe Nobles
  Industrial Designer, Design Director, Tournesol Siteworks
Bob Sherens
  AIA, Retired Architect
Nickolas Smith
  CADD Layout Design Drafter A, Northrup-Grumman, Santa Clara, CA
Will Whitted
  Industrial Designer / Engineer, Google, Retired
Lilya Vorobey
  Professor, Drafting Technology, CSM
Diana Bennett
  Professor, Digital Media - DGME, CSM

AGENDA / MINUTES

Location: The Office, San Carlos, CA - 11:30 am

- *Introductions*
- *Update on Drafting Program* L. Vorobey
    - All classes are now asynchronous.
    - No Textbook – roughly 170 pages of handouts per class.
        - Example chapter for
    - Student ages run from high-school students to retired engineers, architects, designers.
    - Attrition rate is similar to face-to-face classes.
        - Exit survey with students who were struggling and wished to drop the class complained that they weren't able to keep up with the homework. A 3-unit class requires 9-15 hours of work per week. Every assignment has a due date roughly 3 weeks later. Most students leave the course work until Sundays since assignments are due on Sundays at 11:59pm.
    - Course additions include more discussion topics.
- *Discussion Topic: How has the media changed the way students' study?* *(Notes have been summarized from an audio tape)*
    - JN: Find that it is easy to go down the rabbit hole and get caught up on little bits of information here and there online. Then I realized that hours had passed.
    - NS: Even at work, I see people using their phones when they should be working on a project.

- MT: Media seems to have limited the time worker's attention span. Everything has been broken down into small segments. Although, when I go to Italy to work with cordwainers (cobblers), since they have been doing this work since their teens, they are not in any way swayed by media.
- LV: I still add a few notes to the modules asking students to consider how they spend their time. When I was doing face-to-face classes, every class had a few students who spent their time on their phones. There were instances where I had to take phones away after I noticed that an hour had passed, and they hadn't added anything to the drawing on the screen.
  Time management in an online class is definitely something that makes or breaks a student. There are also many instances where it is easy to see if they are reading the handouts. So many students simply try to create the assignment without doing the reading or even watching the videos that are included in the modules.
-

- *Are there other software programs that should be included in the department?*
  - NS: We use Creo, Siemens NX and now Solidworks. Employees should have experience with additive machining, machining via mills, lathes, routers. They definitely need to have the ability to communicate orally and be able to write.
  - If a student learns Solidworks, then making the jump to NX or Creo will be easier than starting with those extremely difficult programs.
  - WW: Google started with Creo/Catia & that proved to be too difficult to learn without classes. Then Google bought Sketchup which didn't provide enough information on drawings. Now they are using Solidworks. Again, some engineers are having difficulty learning the software because they are too proud to ask for help…
  - JN: Making a transition into a job after school can be a problem since a company may not use the software they studied.
  - RS: That seems to be the issue with architects. For some reason more students think AutoCad is the answer while Revit is slowly permeating the job sites. Right now, many employers are asking for Revit and AutoCad. I suspect that Revit and ArchT will be the go-to programs in a few years. ArchT is not as sophisticated as Revit.
- *Open Conversation* – Discussion
  - Any other skill sets to add to the following list (below)?
    - WW: The ability to sketch on demand. Hand drawings are a must in any design situation, specifically with a team of designers. Although the idea of sketching out ideas for a project solidifies the idea and steps required to create anything in the software. It allows the brain to work out complicated issues without the interference of the software since the software is limited by the command process.
    - JN: Teamwork is a little more difficult since most work from home now. I only go into the office once a week unless I have to go to Seattle to communicate with the builders of our products. I am the only designer,

so I spend most of my time working with engineers. Our products for landscaping are limited by the equipment and skill set of the workers.

- NS: Northrup doesn't allow working from home.
- WW: Working independently is paramount these days.
- JN: Yes, coming into a meeting unprepared puts you on the chopping block. Also, the work that I do at home has almost unrealistic deadlines.
- MT: In the design field, you need more software than just the design software although I work with the cordwainers directly in the factory. We work from my hand sketches. We will develop a new shoe over a few days of experimentation. Most of the design is dependent on which hides are available. The amount of one type of hide also dictates the number of shoes produced. Then the shoe goes into production.
- LV: Limited editions?
- MT: That is actually one of the selling points of my shoes.
- LV: Aside, is there anything else I can add to the department that would entice students? I did mention a while back that the program is being phased out. We are not really sure how long that will take. Apparently, there is a process that needs to be adhered to. I will keep you in the loop.

SKILL SETS EMPLOYERS LOOK FOR IN CAD DRAFTERS

Communication
Written communication, nonverbal communication, verbal communication, active listening, conciseness

Teamwork
Empathy, coordination, conflict management

Work ethic
Discipline, integrity, accountability, self-initiative, ABILITY TO WORK INDEPENDENTLY (at home).

Computer skills
In addition to the specific CAD software, Microsoft Office Suite, e-mail management

Time management
Planning, self-starting, prioritization, goal setting, organization, delegation

Interpersonal skills
Presentation skills, risk-taking, diplomacy, tolerance, sensitivity, patience, flexibility

Additional Skills
The ability to create hand sketches and drawings, create and lead PowerPoint presentations.
Ability to edit photographs for displays, presentations.
Ability to write outlines for presentations.

How do we change the study habits of students to understand that they need to work on the programs daily.