Members

P ?	Name	Company	Title	Phone	Email
P	David Nowell	Sims + Architects	Architect	806-358-7069	dnowell@sims-architects.com
P	Cory Acton	Sage Oil Vac	Engineer/Design	806-372-7559	cacton@sageoilvac.com
P	Richard Evers	Xcel Energy		806-881-5366	r0077851@actx.edu
P	Richard Barnett	Xcel Energy	Supervisor of Substation design	806-881-5366	richard.d.barnett@xcelenergy.com
P	Gentri Zgadzaj	Bluehaven Homes	Lead Designer	806-803-8110	gzgadzaj@bluehavenhomes.com
	Ryan Gromeck	AISD/Amarillo High School	Teacher	806-326-2000	ryan.gromek@amaisd.org
P	Chris Thompson	Valero Energy	Design Supervisor	806-955-1290	chris.thompson@valero.com
P	David Galvan	McCracken Electric	Designer	806-372-8339	davidg@spectrumsystem.com
P	Eric Combs	ASID – Caprock High School	Teacher	806-326-2200	eric.combs@amaisd.org
P	Jacob Moreno	Altura Engineering & Design	Business Development/Partner	888-947-6066	jacob.moreno@alturaengineering.com
P	Jeremy Matthews	Altura Engineering & Design	Designer Manager	888-947-6066	jeremy.matthews@alturaengineering.com
	Travis Brown	Brown Consulting Engineers, Inc.	Principal Engineer	806-354-0141	travis.brown@brownconsultingengineers.com

Others Present

P ?	Name	Company	Title	Phone	Email

P	Linda Munoz	Amarillo College	Dean of Employer Engagement and Experiential Learning	806-371-2999
P	Holly Hofmann	Amarillo College	Director of HSI Stem Grant	806-371-5974
P	Lisa Soper	Amarillo College	Instructional Designer	806-348-5502
P	Carrie Hoffman	Amarillo College	Drafting Coordinator/Instructor	806-371-5091
P	Penelope Davies	Amarillo College	Department Chair – Math, Engineering, Drafting, Data Science	806-371-5901

AGENDA

- KSA Results

  Questions for employers

  o How does this skill benefit your company?

  o How do you see this topic being taught?

- Changes to program addressing the results

- Final Project course redesign

  o Work based project using BLC member-designed project

  o BLC would be a mentor and meet with student once per month during semester

  o Who would like to create a project?

What are the next steps?

MINUTES

Flyers/handouts explained - certification and AAS | Software taught in the program - one year certification and two years with an Associates with Applied Science degree - Software used and taught in AAS

What is a BLC? Business Leadership Council - Need to hear from you. Co-leaders, increased engagement, community participation that best meets your needs. Seamless pipeline.

Need feedback on KSAs and redesigning final projects | Addressed those that are addressed in first or second year (Topographical class) -

Jacob - need to learn all software in first year; not important to include topo in first year. What does research look like for your company?

David - on commercial projects, so many remodels - surveying would be important to research? Going out and identifying whether a project is the same as the blueprint is a type of research - anything at all related to rework? What was the original scope and what happened?

Jacob: How do you do that in a classroom?

David N.- It's been a while awhile - AutoCad/AutoDesk Infra-works - ADC collection | started using it more recently - we can window in on a project area and it pulls together tons of public information (property areas) - single model very quickly (three-dimensional model) - Windowed a large area and it sends you the model in the cloud (extrudes the buildings, makes assumptions, roads, utilities that are available). Can take things out of Auto-Cad and put it back in; research like that would help. Would be included as part of one class - introduced in year 1 but extended a bit in year 2 | add to #10 |

David G - does not need to be part of another class, needs to introduce this difference to the students whatever they chose to do - learning how to do research (civil, pipefitting, mechanical drafting).

Jeremy - I hired a kid from Tyler Jr. College - had to work an actual job. Looking at what | Makes more sense to do it between year 1 and year 2 - maybe during the summer using Autocad - look at what you might be interested in what you want

Jacob - you can get up to six college credits in a co-operative |

Gentri - At my company, we talked about hiring full-time interns

Penelope - Getting into the workplace early is important and accountable.

Lisa - The good news is that working in the current grant, contact Carrie or our Career Navigator and keep students on the right track

Holly - you all may have different levels of education for your interns; do you need someone who is at the end of their education (capstone) or in the summer (after one year with AutoCad experience) | What about job-shadowing? Maybe at the very beginning, there is a job shadowing experience. Through job shadowing, students can identify where they want to be at any given time.
#38 and #40 - What did this mean to you?

Jeremy - For Altura - they are field walking the site. Identifying how the drawing fits the site (is that what he said). Second, they are trained to run a 3D scanner to incorporate site data and incorporate it into the drawing.

Chris - Basically the same thing. We hired Altura. Regardless of the designer type, you have to go out to review this. Look at a drawing and compare it to what you see - right or wrong.

David - Take students out to the field to see how the electricians are working, where the ducts are, where the water pipe is, why we are doing x, y, z as a drafting. Them seeing it will help them.

Gentri - as far as residential drafting goes, having a site plan - drawing a site plan, property lines, property set-backs.

Eric - I go through the phases - in the first year, they go through Rivet, Lumion - Start with the tools and mechanisms, site analysis, set backs, use of structure, residential construction and specifications; after the first year, match the specifications of residential for City of Amarillo. After the second year, ? 1500 square living space behind Tradewinds - When they are going on to AmTech - they go into Mass - I am working on certification | AutoCad and Rivets (user based certification). Signed up for the exams at AmTech - most will be certified in Revits.

> Linda - do you need these third party certifications

David N - certifications help us know that they have a working knowledge of the software they were taught. We can talk the same language and I can ask you do to something, and you should know what you are doing. Drafting certificate at AC - broad coverage at many software companies.

David N. - need to spark the partnership with school districts so that they are doing real world | informing the student, in order to get your certification in autodesk, you can get an official certification (Eric is a certified for Revits - AISD covers for the HS student) - timed exam | G-metrics is a proctored exam.

Richard - interns can do walk-throughs at substations, but they do not work on substations once they come in the door.

David N. - We use BB everyday. It is out default PDF viewer. It is powerful, very straightforward. Example with work with one client - took existing blueprints, can overlay it with realistic color in less than an hour. Quick mark up tool. BB Studio - you can have teams all over the country/world, you can have multiple people looking at the same document, put in their comments, and sharing and updating material live.

Eric - does it work under same principle as Lumion and Sketch up?

David N. - Do not know. It might.

David G. - We use it electrical. Use it for markup, measuring, pipe distances, and provide estimating material.

Jeremy - intern researching software, including BB.

Gentri - use it only to combine PDFs.

David N. - advantages

Jacob - BB more on-the-job training than in the classroom. Autodesk - migrating projects in the cloud - share clients.

David N. - BB out there for 10+ years | contractors using it for estimating; can be beneficial in their own coursework they are doing. It's a neat program. Use it as a final project - edits, proposals, text | Such a neat program.

Carrie - Is it comparable to NitroPro and Adobe |

Jacob - are the students doing group projects? (Carrie - no, hasn't worked.). So maybe we need to introduce it to them on-the-job.

Eric - Residential drafting and ? are articulated.

Larger discussion - in the co-op class, they are with you all but in the one hour a week, we do different softwares. Question about whether BB can be an elective course rather than an existing course. Possibly only as the number of students increases. Possible direction: first year introduce software and different drafting disciplines and then do some job tours then have employers come in and talk to them during course on how they use certain software in their own companies.

12:37PM   Carrie explains where we are with our final project. Currently, it is a student led project. We had a lot of dream homes - maybe not realistic. Looking at doing a redesign, we want to move this as a co-operative project. We want to do this more as an industry-led project. We can pair individual students with Mentors - the students do a project that the employer gives the student. How does that sound to you all? Is it possible? What would work?

Jeremy - give the students a small project that we normally do with our entry level class.

Lisa - The way we are approaching this is that all the students may not be eligible to work in the field or in a final project (in the classroom).

Penelope - Can we include employers to provide final projects or internships as capstone?

It will work for Altura. They have senior level designers who can help. Cory agrees as well - we can do either one (final project or internships). Cory encourages group efforts because the ability to work with a team is key. You rarely work on your own in the field. Those abilities to interact as a group is important; need to design that in a way for each person to have an area for which they are responsible.

Need to give the student the option for the internship or the final project - practical: residential, piping, electrical, mechanical. Drafter should be able to draw anything. Should be the gist of the drafting program - see it in their head and put it on paper.

Adjourned: 1:00PM

Amelee Remie,
Recording Secretary