March 18, ATEA “Sharing Best Practice” Call

On the call:

Ross Monroe, Everett CC, Dept Head Engineering Technology, Composite, Mechatronic

Brandon Hudson TN, HE Commission Senior Director of Workforce Development

Travis Grubb, Interim Dean, Gillette Wyoming. Welding, Machine Tool Tech, Diesel

Natali Danes, Curriculum Specialist Georgia Tech System

Adrian San Miguel, Idaho Career and Tech Education

Melody Bailey, Industry Training Instructor, Tennessee east Region

Kent Powell, Amatrol, best practices

E.J. Daigle, Dean of Robotics and Manufacturing at Dunwoody College of Technology

Shared best practice:

1. Talk to accrediting bodies and Higher Ed and accreditation at your school
2. Ask what is important? With 8 weeks of semester left what do we want students to continue to learn?
3. Lecture lab courses

Look at course competencies

Look at syllabus

What have you covered or not done

Lecture is easy to continue on

Screen capture technology

Canvas LMS—slides record over the slides

Wy-Com tablet—picture of the weld, pointing out quality of the weld

1. Load up to YouTube instructors’ video, close captioning for free,
2. Keep it simple

End of the week, online quiz LMS competencies that week

Place in LMS activites from 3/23 to 3/27

Give a range of times to do the work or view the videos or “chat”

All schedules are changing—family members, work

Do not do synchronous lectures or quizzes

Set out a weeks’ worth of material

1. Where there are issues:

Lab side

Don’t count on longer labs later

Plan for no one going back

1. **How can faculty meet the competencies of the lab in the online format?**

Cannot do what you did last semester

Accrediting needs to understand the changes required to meet competencies

1. Touch each competencies in some manner
2. Process sheet—machining for the past 9 weeks, the next 8 weeks CAD model of the part and how you go about making the part (SK’s notes below so could have missed a component but you or your faculty will get it)

Print of a part

Model in CAD

Select materials

Source materials

Select the Tooling to make the part

What part is machined first?

1. **It is an unknown environment but the goal is for students to progress and continue to learn.**

**Comments and suggestions:**

Give the names and resources for faculty to call: Cell phones. Email and IT departments

**Ross Monroe, Dean, Everett College, WA**

**Video tape labs**

It takes several hours to do a 5 minute video so record it with future use in mind, do not talk about dates or a specific term, keep it open ended. You will use it again.

50 minutes is too long

5 to 10 minutes

Leverage this information into the future

Open ended—do not date it

Do not relate specifically to this term

You can use the videos to infuse into a class

Reverse classroom activity watch it first

**How do good assessment?**

Online course assessment—tests—have several it is more difficult to “cheat.”

Have a bigger project

Show there independent work within the project

**Sandra**

Form Groups

Have them meet in Google Hangouts or other virtual meetings

They can video the project or create power points

Accept that 9:00 PM as the time they have for a “Google Hangout” 8:00 is better there is more time for follow up but they can select the time.

Midnight is a submittal time.

Divide up group tasks and if possible everyone does each task which could be, written record or notes, convener, visuals, submit final—you decide the areas.

Give them assessment criteria for judging group participation, examples might be: helped me learn, shared ideas, took responsibility, asked good questions, provided helpful feedback etc. have them submit a number 1-5 for each member of the group to the instructor and award the rating from the average of the points.

**Ross**

Group Work as part of solution

Capstone can be a team

Students are tactile learners more challenging to go online

Difficult to bring them in and engaged

**Sandra**

9:00 time for Google Hangouts

Mechanics of group someone to submit

Natali

What are YouTube videos to get off the internet?

Virtual lab materials available to assist in this area?

E. J. – Here are a few ideas;

1. **Electronics/Mechatronics/Robotics**  
   - AllAboutCircuits Videos - <https://www.allaboutcircuits.com/video-lectures>

- Epson SCARA Robot simulation FREE software - <https://www.youtube.com/watch?v=spOfibRTc5w>

- MultiSim (Require software/licenses) - <https://www.youtube.com/watch?v=10Rt2p3seV4&t=1s>

1. **Machining**

- Machining is so hands-on it’s difficult to do anything distance/online

- Consider additional MasterCAM or CAM-based exercises

- Utilize NCViewer for FREE if students do not have CAM access at home [www.ncviewer.com](http://www.ncviewer.com)

- Try to touch the competencies from lab through videos; EdgeFactor, ToolingU, etc.

1. **Welding**

- Similar problem to Machining

- There are a lot of videos on line.

- I don’t have any, but here’s an example <https://www.youtube.com/watch?v=Nf49JFNT574>

Brandon Tooling U online

Assessments for digital learning

Melody

Virtually create items

Write curriculum for different companies

Group chats—i.e. how to fix vehicles into group activities

Lectures and record with PowerPoint utility

Small groups to do hands on and rotate to the next groups able for now

Kent Amatrol

A call on March 24th

Online, the information on this call is valuable

400 courses on technical learning, can do it virtually

Share how people are using it

Millennials and Gen Z—need to experience completion

Thank you again for being on the call.

If there are corrections please let me know. The errors are mine not the participants

Sandra Krebsbach

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