

Industrial Technology Annual Advisory Committee and AMT Sub-Committee Meeting
April 22, 2016
7:30 a.m. – 8:30 a.m.

Meeting called to order and welcome by Terri Messer, filling in for Reginald Davis, JSCC Industrial Technology Advisory Committee Chairman with the following members present:

Gerald Batchelor (JSCC), Jason Bates (Toyota Bodine), Jere Cox (Automation), Rich Cunningham (Lyondellbasell), Reggie Davis (TBDN), Jeff Garner (TBTN), Jeremy Harwell (JEA), Jerry Hughes (Pacific), Rob Kirts (StanleyBlackandDecker), Michael March (StanleyBlackandDecker), Randy Pearson (Jackson Madison County Schools), Dale Popp (Gerdau), Steve Reece (Medtronic), Dan Rodenbaugh (TCAT Jackson), Chris Zamora (Owens Corning) and from JSCC: Roger James, Jack Laser, Ben Lawrence, Terri Messer, Cathi Roberts and Janice Taylor.

Introductions by attendees.

Redesigned curriculum labs have been overhauled

Meeting minutes are posted publicly on JSCC's webpage

Old Committee Business: Progress on McWherter Building Expansion

- Lot of space was converted for Nursing.
- Conversions are being made to go back to high bay
- Computer labs with computer and station for instructor
- Across the hall, rooms are being converted from high bay to low bay
- Room will be used for everything from IT training to business type programs
- Hopefully by fall, everything will be ready

Gerald Batchelor: Everything is on schedule and moving like it is scheduled to. Will be ready for August.

More space, more opportunity, more training.

IT Instructors are teaching from 8:00 am to 9:00 pm three nights a week

Declared IT students: 74 students that started in the fall that said I want to work for your company.

We have growing pains just like everyone else. The positive is that we are on the right track. This program lost about four students. Enrollment growth is up.

Question: How many people do you complete?

Answer: May 7th, we will have the largest graduating class ever coming out of this program. We will have that same number every year. Cohorts all come in at the same time.

We had 26 in the fall of 2014, 20 are completing.

This become has become a model for the State of TN. Burns Phillips, Commissioner from Economic Community Development Office stated we want to spread this program across the state everywhere.

Exit Exam Results: Each year the students have to take a comprehensive exit exam to graduate. Review the subject with all of the students. Feed them. We had 24 people to take the exam this year. Pleased with the performance increase....not pleased that this is not higher.

Applied Manufacturing Concentration deletion: No enrollment....no graduates to sustain the program.

State-wide common curriculum: We are deleting the one concentration initially used for Machinists.

Dan Rodenbaugh at TCAT Jackson (28 students – 15 completers per year) turns out the best drafters. They are getting 100% placement. Right now, this one concentration will be deleted. We have only had two graduates in the last five years.

IT Course Sequence:

61 credit hours for an AAS in IT – we have 13 IT and 7 General Education. The Math portion that had been required is MATH 1530 has shifted over to College Algebra. ACT has to be higher.

Ben Lawrence joined our team last year. The highlighted ones are the ones that we need your input:

IT 150: Industrial Circuits and Safety

EET 150: Electro Mechanical Devices

EET 180: PLC I

EET 170: Electronics I

EET 230: PLC II

EET 260: Instrumentation

EET 200: Motors/Motor Controls

We will offer two day sections, two afternoon sections and we will have an evening cohort.

Fall 2016 Course Schedule Options:

Day – morning, afternoon and evening.....trying to meet all of the needs of industry.

We will be looking for part-time instruction. We will also be looking for one more full-time person.....the person must have a degree in engineering with a least five years of manufacturing experience

Program Recruitment Update (Cathi Roberts):

AMT Coop deadline date for applications was April 15.....the minimum of 19 on MATH.

77% of students come from manufacturing.....majority have maintenance workers in their family.....an open house is planned and we also would like to speak at churches. We are trying to find the best way to work with high school counselors.

Randy Pearson: Our grad coach, Susie Smith, tries to start early by reaching a lot of students going the four-year route. I don't think they really understand. One company is hosting the superintendent, principals, counselors, etc. I believe there is a disconnect.

Manufacturing Day, the Guidance Counselor doesn't go on those tours and they are the ones that we need to target.

Help us in any way you can. We may even start promoting in your companies.

Curriculum Review (Roger James and Ben Lawrence)

Overview of entire MSMT course sequencing:

IT 150 (Industrial Circuits and Safety) – will focus more on safety.

- OSHA 10 hour certification embedded
- Raising course standards to acclimate first time college students to rigor of program expectations

EET 150 (Electromechanical Devices):

Learning objectives –

- Serving as a start up for the Motors class
- Learning activity packet (LAP)

We have just secured our ability to have some online material pre-test and post-test

Question: How much hands-on do they have?

Answer: 98% hands-on. They have to get into leveling.

Question: How much lab have you completed?

Answer: New trainers, new devices, new ways of teaching this class

Steve Reece from Medtronics.....graduated from JSCC.

EET 180 (PLC I) – new approach to hands on labs :

Understand what PLC I is, its purpose and overall scope.

Difference between remote IO input CD and output CD

Brief explanation of each learning objective

Question: Are there opportunities for the students to go to a plant to see stuff working?

Answer: Our students are working three days a week.

Question: Those students that are not familiar with this, this could be a deal breaker

DC/AC Circuits – class first

We do not have our multiple PLC lab set up.

Reggie Davis: Any student that is not placed, we will set that up.

We do a lot more of that in PLC II.....a lot of hands-on.

EET 230 (PLC II) – additional hands on lab activities:

Analog inputs and outputs

We start delving into real world problems. Start looking at networking

8 PLCs older style on a wall

8 new compact Logic PLCs

PLC II hands-on wiring...building a panel for different uses.....they have to troubleshoot their own mistakes

Jeff Garner: Important.....networking ability and communication.....the point of how you physically install some networks.

Question: Mainly teaching on the 5000 platform.....are you actually making them do things the hard way?

Answer: I make them come up with the equation.....everybody doesn't use Allyn Bradley.

Question: Are they able to troubleshoot PLC?

Answer: Right now I don't have a lot of bad PLC parts. Most of the troubleshooting in this class comes from the wiring.

Brief discussion followed.

EET 170 (Electronics I):
Brief explanation of learning objectives.

Question: What sort of electronic insight would you say is really valuable at your facility? Would like to convert class into a digital system. They are dated. Not enabling designers.....looking to make you excellent troubleshooters.

Jeff Garner: Maybe this is where you start developing how to troubleshoot. Block those blocks down. How do I look at getting down to that card level? When you open a two-door cabinet up, what is the first thing you look for?

Brief discussion followed.

I hope you are looking at pacifiers.

Developing flowcharts.

EET 200 (Motors and Motor Controls):
We have a specified motion control PLC right now.
The feedback I am hearing is drives, drives, a small 525.....we are going to smartly grade that in.

EET 260 (Instrumentation):
Hammering down what we want in it. We are in the process of completely rebuilding it.
Redefining what the class is - Drive into automatic controller tuning.
Is there anything you want to see in an Instrumentation class? We have a lot of wiggle room

Jeff Garner: Put in one of the blocks about wireless instrumentation.

The subject area – the particulars on what you would be interested in us covering.

It was very little hands-on when we previously taught this class.

Question: Were you talking about introduction to control valves? Assuming servo promotional values.

What we are seeking on this we feel there were some deficiencies in this course. Could I find funding for something like this? If you think this is valid, then I am going to need to get some support letters from you.

Instead of buying a new trainer like that, add one or two of the parts.

We can do that.....designing trainers or teaching.

Assuming the trainer probably comes with an outline.

Discussion followed.

If you think of anything after the meeting, the folders have Ben and Roger's contact information.

Also in our curriculum, students are getting exposure to the additional core manufacturing exercises that Toyota offers. These are extra.....we would like to embed one of these trainings into our classes. Lean certified instructor.

Is this value added to your company?

Dale Popp: I think it is for us.

Black and Decker: Yes

ARJ/TBDN: Yes

When they start working.....they will have to repeat....more verification.

We have 18 manufacturers that make up a consortium. We have a lot of different things they have agreed to let us do

TBDN – Safety

SBD - Lean Mfg.

Pinnacle - 5S

Is this still the best time to meet?

Jere Cox: Program has completely turned around. For any company that has a skills test, make sure JSCC has a copy of that.

Meeting adjourned.