

**MECHATRONICS ADVISORY COMMITTEE**

**MEETING MINUTES**

**Tuesday, April 11th, 2017 \* 6:00 – 8:00 p.m.**

**Columbia Tech Center, Room 202**

**Members Present:** Zeb Hallmark, Committee Chair, Analog Devices; Chris Taylor, Vice Chair, Daimler Trucks North America; John Smith, Lab-Volt Systems, Inc.

**Members Absent**: Nirav Sheth, SEH America; Silviu Spiridon, Analog Devices; Mike Kloeber, Perkins Pacific;

**Guests**: Jeff Garett (MTX Tech)

**Clark College:** Chris Lewis, Department Head/Mechatronics Professor; Instructors Ken Luchini , Anne Koering, and Roger Godsil; Genevieve Howard, Dean of WPTE; Wendé Fisher, Advising; Scott Clemans, Career Services; Cathy Sherick, Assoc. Dir. of Instructional Planning & Innovation; François Wevers, ECD; Nichola Farron Secretary Senior – Advisory Committees

Committee Chair Zeb Hallmark called the meeting to order at 6.15pm and introductions were made.

Minutes of the previous meeting

The minutes of October 11 2016 were deferred to an e-vote as a quorum was not present. *As of April 14 2017, the minutes have been approved.*

Next Meeting Date

The committee will meet again on Tuesday October 10 2017 at 6.00pm

In addition, Chris took the opportunity to invite committee members to the student Capstone presentation scheduled for June 15, 2.00pm at CTC.

Office of Instruction Updates

Cathy Sherick made the following announcements:

Clark is completing the series of **Business and Community Learning** events on campus this spring. The quick and friendly ‘lunch and learn’ opportunities. FREE and open to the public, the workshops will be scheduled from 11:30 a.m. to 1:30 p.m., and held in the GaiserStudent Center, allowing people to attend on their lunch hour.

* **Friday May 19th The Power of Completion**

Join us here on campus **Saturday June 3 10:00 a.m. registration opens for the FREE** Healthy Penguin Walkabout. There are several stations set up across campus, with health activities and information about one quarter mile apart. A great way to get some exercise, some health information and have fun.

In keeping with the college campus theme, TRANSFORMATION work on the **committee composition** continues! We are seeking nontraditional members, those folks who are not typically associated with the field (like women in welding). Your assistance is appreciated, if you know of someone who might be interested in joining a committee, let us know.

 We are also going to be making a big push **to engage students and Clark Alumnae** in the work of the committees. Students will be able to earn a small stipend and a letter of recommendation for their attendance and participation. Piloted this year, have not had students waiting in line – but we want to have them be a regular and vital presence on every committee in the future.

**July 13, 2017 – Evening event to recognize our committees** and the terrific volunteers that come to meetings two times a year to support students. Watch for additional details to arrive via email.

Clark College will hold **graduation at the Sunlight Supply Amphitheater on Thursday June 22 at 7:00 p.m.** It is a great way to celebrate the work of the committees. There is always a need for volunteers at the event, if you are interested please let us know.

Program Outreach

Chris shared with the committee that 40 eighth Graders had recently visited and toured the program, as well as doing hands-on activities with the equipment.

The committee then spoke about events like this as an opportunity to connect with school counsellors to promote technical education. Genevieve continued that she has connected with a number of high school partners as she promotes the RAMP grant.

Cathy then spoke about recent efforts to connect more with High School partners as an effort to educate students and their parents about the opportunities for careers in the professional-technical fields.

Course Development – NSF-ATE Grant

Chris outlined to the committee the progress made on the seven hybrid courses developed as part of the NSF-ATE grant. Following the fall meeting, the department met to work on the development of courses that could be converted to an online and hybrid format. They have received training in the creation of the online materials that are available as Canvas shells.

The idea is that the online portion will mean that students need to spend less physical time on campus providing greater access for rural students.

The courses are as follows:

MTX 100 Industrial Safety – Chris

This is a 1-credit course with 10 hours of lecture delivered online with a similar structure to OSHA 30: there is no lab component.

Chris continued that this requires students to complete in a systematic fashion and progress through the course logically.

The committee reviewed the content and Zeb and Chris remarked that is appears to be comprehensive.

MTX 101 DC Fundamentals – Anne

The faculty talked about the possibility of creating a kit that students could work with a home in order to have experience with resistors and parallel circuits etc.

Anne continued that there would be a specific focus on the safety aspects that accompany working with electronics.

Genevieve noted to the committee that online courses allow the students to complete without ever needing to come to campus. The hybrid courses will allow for apportion of face-2-face instruction: the challenge for the Department is figuring out what can and cannot be delivered online: most of the first quarter classes can be taken entirely on the web.

MTX 102 AC Fundamentals – Ken

Ken talked further about the possibility for a low-cost kit for the students (priced at approximately $80) for the 4-credit class. The online portion required students to complete a module and testing before progressing.

MTX 103 Basic Measurement: Tools– Anne

Anne outlined that the students will be taught how to properly read the measurement tools and that part of the course can be done at home. The students will familiarize themselves with tools such as the multi-meter, micrometer and caliper. In addition, students are taught how to use the oscilloscope.

Chris Taylor suggested that torque meters might be a good additional tool to include; the department will investigate this.

Other discussions focused on the hydraulic and pneumatic classes, and the motor control class which all have a similar format requiring progress before advancement in line with a fixed objective.

The committee reviewed the planned online course offerings and made the following observations:

* Costs – there was some concern that the cost of the companion kits proposed to accompany the courses may be too expensive for some students: Dean Howard explained that there might be an option to create ‘loaner’ equipment for students.
* Fees – it was clarified that $30 is the standard fee for online courses at the College to cover the cost of web enhancement.
* Online courses are financial aid eligible so students will still be able to qualify
* Course Delivery – Chris outlined that the Department has purchased a Go-pro so that they can video the techniques being taught to provide visual content to help students.
* Chris shared that he had challenged the faculty to find a textbook that could cover two courses and could be used as a reference as a cost-saving exercise for students.
* At present, the thought is that 3 Saturdays in the fall quarter will be available for lab time for the remote students that this grant is aimed towards reaching.
* There was agreement that the online and hybrid course structures will help with retention of students as they provide a structured learning environment
* The 7 courses transferred to this format at present represent about 6 months of work for the faculty: development of the remaining 28 courses in the Mechatronics program into an accessible format will continue.
* These classes will launch in the Fall

Genevieve continued that she has undertaken extensive outreach with partners and CTE directors in rural communities. The grant requires 16 students from rural areas go through 2 quarters. A number of information sessions have been held. The grant can also be used by unemployed adults and graduating seniors in the catchment communities.

These specific classes will not be visible in general schedules so that they are dedicated to the particular group of identified students.

Internships

Chris Taylor shared that he has connected with the President of Western Star Trucks who has partnered with Daimler on an internship initiative. Interns come for 6 months and then work to recruit their own replacements. It represents a great opportunity for students to gain working experience as they are placed on anything up to 6 projects.

Zeb adjourned the meeting at 7.50pm

Prepared by Nichola Farron