

Modesto Junior College

Machine Tool Technology Advisory Committee Minutes

March 20th, 2018

Meeting Called to order at 8:20am

In Attendance: Thom Brumley (Grace Davis High School), Kevin Walker (Gallo Winery), Jim Selway (CNC Solutions), John Ryan (Lock-N-Stitch), Corey Gerson (Fastenal), Pete Schoenenberger (LLNL), Raj Panjabi (TC Americas), Martin Fernandez & Jose Garabito (Newman Flange), Jeff Weaver (MJC)

Approval of previous meeting minutes. Motion made by Kevin Walker and seconded by Pete Schoenenberger

Old Business: None

New Business:

A. Report on the status of program at Davis High School – Thom Brumley

Thom reported that he is officially titled as an Ag instructor. His classes are now titled Ag Machining and Ag Carpentry. His feeling is that if he were to retire, with his classes falling under the Ag umbrella, that the position has a higher likelihood of being replaced at the school. Thom also reported that he has recently received a Trak Milling machine for the Ag Machining class. MJC also has this same model machine in the Machine Shop, so there is a nice correlation for students.

B. MJC enrollment report - Randy Thoe:

Randy reported that enrollment was down slightly Spring of 2018. The lower enrollment is most notably seen in the introductory Machining Classes. Attributing factors can only be speculated, but some could be credited to the economy and aggressive hiring practices that industry has seen over the last year.

Course	Course Description	Fall 2018	Summer 2018	Spring 2018	Fall 2017	Spring 2017	Fall 2016	Spring 2016
Mach - 211D	Machine Tool Tech	X	X	3	4	11	12	9
Mach - 211 E	Machine Tool Tech	X		17	7	9	7	9
Mach - 212 E	Machine Tool Tech 2	X		11	9		7	
Mach - 213	Machine Tool Tech 3	X		4	5	5		3
Mach - 222	CNC Operations	X		10	5	8	7	12
Mach - 218	CNC Lathe Programming			11		7	9	11
Mach - 219	CNC Mill Programming			9		12	9	7
Mach - 301	Machine Shop 1	N/A	N/A	N/A	23	16	16	15
Mach - 302	Machine Shop 2	N/A	N/A	N/A	N/A	10		8
Mach - 303	Machine Shop 3	N/A	N/A	N/A	N/A		4	6
Mach - 395	Advanced Shop Lab	X		5	0	2	4	7
Mach - 357	Blueprint Reading	X		13	22			
Mach - 220	Computer Aided Manufacturing	X			16			
Mach - 223	Advanced CNC Operations	X						
Totals				83	91	80	75	87

X = Class Scheduled to be taught

C. Summer Class Schedule 2018 for MACH:

MACH 211D Intro to Manual Machining, Guest Lecturer Robert Bates
-Classes 6/12/18 to 8/16/18 Tuesday/Thursday 5:00pm-10:10pm

D. Fall Class Schedule 2018 for MACH:

MACH-200DE- Intro to Manual Machining, Instructor Randy Thoe (Morning)
MACH-201D- Manual Machining 2, Instructor Randy Thoe
MACH-202- Manual Machining 3, Instructor Randy Thoe
MACH-357- Blueprint Reading, Instructor Randy Thoe
MACH-208- Computer Aided Manufacturing, Instructor Randy Thoe
MACH-209- Advanced CNC Operations, Instructor Randy Thoe
MACH-200E- Intro to Manual Machining, Guest Lecturer Robert Bates (Evening)
MACH-205- Intro to CNC Machining, Instructor Ken Morrison
-Classes 8/27/18 to 12/15/18

E. Software Updates

a. MasterCam 2018 (Mach 208)

A demonstration was shown of the software, and examples of some of the projects used in the recent MasterCam class were shared.

b. NC-Simul (Mach 206/Mach 207)

A demonstration was shown of this software and how it was being used to help students simulate their part projects in the Manual CNC Programming Classes. This software was made available via Carl Perkins Funds from 2017/2018.

F. Curriculum Update

- a. New Curriculum takes effect Summer 2018. These are the changes that were made in Spring of 2017 and will be printed in the new course catalog this summer.
- b. An action item remains to create a document promoting the Machine Tool Program now that the new courses are going to print. The idea is to make a 1-page line card with pictures, classes, and certificates offered at MJC in Machine Tool Technology.
- c. Blueprint Class will be transitioned from a 2 hour lecture to 1 hour lecture in Fall of 2018. The course will be supplemented with online content to fulfill the 2 credit course offering. This will allow students to take this class easily in conjunction with the Intro to Manual Machining course.

G. Industry Input

1. Programs, Curriculum, and Pre-Requisites.

Briefly discussed the programs and courses available in Machine Tool Technology. The committee agreed that the program was in line with their expectations. They also agreed that the prerequisite requirements were justified.

2. Materials (Tooling, Equipment)

A discussion took place inquiring about the type of tooling and materials that were being used on student projects. It was requested that students be exposed to materials other than just aluminum on their projects to learn more of an appreciation for speeds and feeds required to cut more difficult type materials. It was explained that the program has been instituting additional projects produced out of steel over the last year. An additional focus will be put on this area as well in the future. One problem of this would be the cost of these materials, but numerous members agreed to donate material remnants to the program for students to practice on.

3. Facility

The committee once again inquired about the potential for additional space in the future. The idea of removing the wall in Ansel Adams 102 was shared with the group. If this space were made available, there would be space for 2 additional CNC machines.

4. Technology

The committee would like to keep our eye on technology advancements in the 3D Printing/Additive Manufacturing area. The feeling is that Additive Manufacturing needs to stay closely knit with the Machine Tool Trade and not venture off into the hands of the “design” group. The consensus of the committee was that Additive Manufacturing is a supplement to Machine Tools and not a stand-alone process.

H. Equipment Report

- a. DRO is out for repair on Bridgeport Milling Machine.
- b. All other equipment is working well
- c. Received additional live tooling requested for Doosan Lathe via Carl Perkins funds 2016/2017.
- d. Received monitor in Ansel Adams 102 as a classroom aid to teach CNC Programming Classes.
- e. Prompt Precision, Ceres, CA Donations (Lathe, Mill, Grinder, Fastener Insertion Machine, and Metal Roll)

I. Other Business

- a. The Machine Tool Program has a \$10,000 request to update lathe tooling and holders through IELM funding. This tooling would aid in the instruction of insert geometry, grades, and coating technologies. This request is still awaiting approval.
- b. Randy attended a training in Gig Harbor, Washington for MasterCam in July 2017 for 5 days.
- c. Shaun Talbot has been added as a Lab Aid for the Machine Tool Department. (19hrs per week)
- d. Randy will be attending IMTS 2018 in Chicago, Illinois in September 2018.
- e. MJC hosted a CTE open house on February 22nd at the Ag Pavilion.
- f. Contract education training is scheduled for Blue Diamond Growers in early May to focus on Manual Lathe training.
- g. Randy will be helping aid in instruction for Stanislaus County Slingshot training for entry level machine operators in mid to late May.