



OAKLAND
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WELDING TECHNOLOGY ADVISORY COMMITTEE MEETING

October 13, 1997

Present: Steve Atma, Faculty, OCC
Sue Barratt, Counselor, OCC
Jeffrey N. Carney, Ferris State University
Phil Crockett, Manufacturing & Technological Services, OCC
Al Dillon, Oakland Technical Center Northeast
Bob Hughes, Walled Lake Schools
Tahir Khan, Chair, Technology Department, OCC
Karl Lis, Chrysler Corporation
William Scrimger, Hi-Tech Welding Services
Bob Sleva, Paraprofessional, OCC
Ruth Springer, Secretary, OCC
Doug St. Clair, Faculty, OCC
Todd Stoughton, The Lincoln Electric Company
Larry Vanderstelt, Wilson Welding & Medical Gases, Inc.

Preliminary Matters

Mr. Tahir Khan welcomed the group and asked the members to introduce themselves. The minutes of the Welding Technology Advisory Committee meeting held on May 15, 1997, were reviewed.

In regard to Recommendation 2 on page 2, Mr. Jeff Carney reported that he did meet in January, 1997, with OCC staff members. He took the information about the OCC program back to his supervisor at Ferris State University, Mr. Ken Cook. The minutes state that OCC staff members did not hear back from Ferris State. However, in reality, Mr. Cook placed a number of phone calls to the office of Dr. Carlos Olivarez and did not receive a response back from him.

The minutes of the follow-up meeting of OCC members of the advisory committee held on August 19, 1997, were reviewed, and a progress report was given on each committee recommendation, as follows:

Progress Report on Advisory Committee Recommendations

1. That OCC investigate the possibility of doing welding certification testing at the Auburn Hills Campus.

Mr. Steve Atma reported that he spoke with Mr. Bob Hughes about this, and was given the name of Mr. Bill Scrimger as someone who does certification testing.

Mr. Hughes commented that there are many different kinds of certification, and it would be hard to narrow it down to just one. OCC needs to better itself so that students would be able to pass a certification test. Many companies certify their own employees for the particular job they will be doing.

Mr. Atma agreed, stating that certification does not have the value that people might expect. Being certified in one kind of welding would not enable a person to do a job which required a different certification. If OCC offered a special course to prepare students for certification, students would pay for the class, the course fee, and the cost of bringing in the person who does the testing. There would be no guarantee that students would pass the test, and even if they did, it might not help them become more employable.

Mr. Hughes expressed the opinion that having such a certification program would not bring in more students. Perhaps if more students come in and express a desire for it, then steps could be taken to provide it. There would be a need for insurance protection in case someone is certified through OCC and then injures someone on the job. Mr. Phil Crockett expressed the opinion that if someone is brought in to do the testing, that person would be liable.

Mr. Khan asked whether there is a society that does certification testing. Mr. Carney replied that the American Welding Society produces certified inspectors who may be employed to do testing.

Mr. Karl Lis explained that certification is for a specific process, material, and position. Companies usually certify their own employees for the particular job they will be doing. The certification may not be transferable if an employee leaves one company and goes to another.

Mr. Todd Stoughton asked whether OCC plans to continue the current Welding vocational program or to create an associate degree program in Welding. He stated that people can get a job without any training. If they do not know welding, they may receive \$6 an hour; if they know welding, they might receive \$8 an hour. Employers are looking for people with more technical training than is included in the certificate OCC currently offers. There is a demand for welding engineers, and there are not enough available to meet the demand. OCC has a good opportunity to apply the curriculum toward that need. Students need training in metallurgy and fundamental engineering concepts. Welding is becoming automated, using Programmable Logic Controllers (PLC).

Mr. Khan suggested that perhaps there is a need for an Associate Degree in Manufacturing Technology with a concentration in Welding.

Mr. St. Clair reported that Welding students are currently required to take ROB 164, Interpolated/Welding Robotic Applications. There is also a metallurgy course in place, but it is strictly a lecture course. OCC would need to invest in material and equipment needed to run the class effectively. Mr. Hughes teaches that type of class and could perhaps advise OCC as to how to revamp the metallurgy class to make it more effective.

Mr. Hughes pointed out that ATW 100, Welding Fundamentals, was designed to be an overview of welding processes, metallurgy, basic blueprint reading, and welding symbols. But OCC has no videos, handouts, or other materials needed to teach the course.

Mr. Khan asked how much money would be required to set up an effective metallurgy course. Mr. Stoughton responded that there would be a need for a number of pieces of equipment, enough for all the students to use.

Mr. Khan asked Mr. Bob Sleva to work with the committee members to find out specifically what would be needed, and then to request the necessary equipment through OCC's budget process.

2. That OCC seek to develop a two-year Welding Program which would be equivalent to the two-year program offered at Ferris State University, and which would articulate with related programs at Ferris, Sienna Heights, and Wayne State University.

Mr. Carney reported that, when he met with OCC staff in January, he provided them with descriptions of the Ferris State courses. He took information about the OCC courses back to Ferris State and gave it to Mr. Ken Cook. Mr. Cook called Dr. Olivarez's office several times but received no response back from Dr. Olivarez, so he stopped calling. Mr. Carney reported that Ferris State is willing to reinitiate the conversation. He does not believe Ferris and OCC compete for the same students. Ferris is in favor of assisting OCC to develop an effective Welding Program and would be happy to accept students who have taken a two-year program at OCC. Ferris accepts several transfer students a year from a two-year program at Delta College. Ferris has many 2+2 programs and accepts many associate degree programs for transfer.

Mr. Atma responded that, to offer an associate degree program for transfer, we would need to equate our credits with those offered at Ferris. He believes it would be possible to do that.

Mr. Carney reported that all the graduates from Ferris's Welding Technology Program are placed in jobs, many before graduation. He believes that even graduates with an associate degree would be able to get good jobs.

Mr. Sleva pointed out that the possibility of creating an associate degree program has been discussed at every advisory committee meeting. However, OCC administration sees Welding as a small program which should be closed down. Enrollment is up this term, but we have old equipment in the lab. The problem is money. OCC's Welding budget is half the budget at the Oakland Technical Centers.

Mr. Khan responded that there is a need for faculty members to develop an associate degree program and take it through OCC's curriculum process. A faculty member should be given a special contract to develop a newly designed program and do a needs analysis on it.

The committee recommended that a new needs assessment be done based on a newly developed program which would meet the needs of industry and be transferable to Ferris State University.

Mr. Hughes stated that there should be both a certificate and a degree program in Welding. Many students just want to learn basic welding, so there should be a certificate program for them. Mr. Carney agreed, stating that at Ferris, students can receive a certificate in Welding after one year of study.

- 3. That OCC consider developing a two-step program with one level which would prepare students for work as a welder, and a second level which would provide training as a welding technician.**

This was discussed under Recommendation 2.

- 4. That people from industry be encouraged to volunteer to come in and talk to students to help them understand that better salaries are available in the welding field if they continue their studies.**

Mr. Sleva reported that he attempted to arrange for someone from industry to come in and talk to the students, but the students were not interested in doing this. They felt they needed all their class time to practice welding. There are a few who would like to hear from industry, but most do not want to spend time listening to a company representative. Many students ask where to go to get a two-year degree in Welding. The younger students would really like OCC to offer an associate degree program.

Mr. Khan commented that the College wants to close old programs that are not doing well, but there is funding for new programs. We will need to work with the campus administration to attempt to qualify for that funding. Mr. Khan will work with Mr. Sleva and Mr. St. Clair and anyone else who wants to become involved, to create a new program and have a needs assessment done on it.

- 5. That an exception be sought from the OCC Faculty Association so that up to four Welding classes could be taught by the same instructor at the same time.**

Mr. Atma reported that he has spoken with Mr. Chuck Neumann, OCCFA President, and Mr. Neumann does not believe there is a problem with teaching four Welding classes at the same time. Mr. Neumann will work with Mr. Atma on this.

- 6. That OCC attempt to obtain additional equipment, such as a Rockwell tester, analyzing equipment, and other equipment used in inspection.**

Mr. Sleva reported that he checked into a deluxe plasma cutter, which would cost \$35,000. At the time, he needed to order two TIG welders, because two of the old ones had become unusable. He has been dealing with a couple of sources that give a very good price to educational institutions.

Mr. Todd Stoughton stated that Lincoln Electric could offer a ten percent discount.

Mr. Sleva will continue to work on obtaining additional equipment.

- 7. That OCC attempt to obtain equipment and offer classes in resistance welding.**

Mr. St. Clair reported that Welding students are currently required to take ROB 164, Interpolated/Welding Robotic Applications. Students do MIG and spot welding on robots. Welding students come in with no robotic experience, but by the end of the semester, they are pretty good at it. Half the semester is spent on resistance welding.

- 8. That, once an upgraded program is in place, OCC develop a brochure and use other advertising methods to market the program, including marketing directly to high school classes.**

Mr. Khan suggested that the existing program could probably be marketed. He suggested that Mr. Sleva contact OCC's Marketing Director, Dr. Dave Adams and work with him one-on-one to develop a brochure to promote the existing program.

Mr. St. Clair suggested that Welding should be included in OCC's Tech Prep initiative. He will check with Ms. Barbara Dursum to see if there is an existing articulation agreement for Welding.

Mr. Hughes responded that there are existing articulation agreements. This needs to be emphasized in the marketing brochure.

9. That OCC consider the possibility of offering basic Welding courses as extension classes at the Oakland Technical Centers.

Mr. Lis reported that he has spoken with Mr. Dave Dursum at Oakland Technical Center - Southeast about the possibility of offering OCC extension classes there. Mr. Dursum is open to doing extension classes there if OCC faculty would like to do so.

Mr. Sleva pointed out that the only time the Technical Centers would have space available is at night. However, our busiest time for classes on campus is at night. Mr. St. Clair expressed the fear that if we hold extension classes at the Technical Centers, we could put ourselves out of business if students go there instead of taking classes on campus. Mr. Khan agreed, saying that he does not see the value of offering extension classes, since students seem to be able to drive to this campus for classes.

Mr. Hughes suggested that perhaps we should wait until a time when classes here are filled and more students want to enroll. That would be the time to begin holding extension classes at the Technical Centers. Mr. Sleva agreed that, if the program continues to grow, it might be good to offer the basic classes at the Technical Centers. However, we should wait until the program is solidly growing before attempting to do this.

10. That OCC become an institutional member of the American Welding Society.

Mr. Lis reported that he has given the American Welding Society information packet to Dr. Olivarez, but he has not heard anything back from him as yet. Mr. St. Clair said that Dr. Olivarez was going to try to locate the information in his office, but Mr. St. Clair does not know whether he has done so.

Mr. Khan pointed out that, when there is no full-time faculty for a program, there is a problem with getting things done for that program. The dean supervises many different disciplines in the Technology Department and in other areas. He suggested that Mr. Lis send another packet to Mr. Sleva. Mr. Sleva will then take it personally to Dr. Olivarez and try to get a response from him. Mr. Khan will work with Mr. Sleva on this.

11. That interested committee members meet as a subcommittee to prepare specific recommendations for the Welding Program, this meeting to take place in the conference room at Wilson Welding at 4:00 p.m. on November 18, 1996.

This recommendation has been completed and will not appear in the follow-up minutes in the future.

- 12. That OCC consider the possibility of adding to the program a two- or three-credit class to prepare students for a certification test.**

This was discussed under Recommendation 1. The group agreed that there would be no real value in doing this.

- 13. That OCC consider offering Welding classes during the Spring 7 ½-week term rather than during the Spring/Summer 15-week term.**

Mr. Sleva reported that the students are in favor of this recommendation, and the necessary changes have been made in the Spring/Summer 1998 schedule. Welding classes will be offered during the Spring 7 ½-week term, and during the Summer 7 ½-week term.

- 14. That OCC consider adding additional instruction in resistance welding to the Welding Program.**

This was discussed under Recommendation 7. Recommendation 14 was not approved.

- 15. That OCC consider becoming involved in competitions sponsored by the Vocational Industrial Clubs of America (VICA), as a promotional opportunity.**

Mr. Hughes reported that VICA sponsors competitions for post secondary students. OCC could send a capable student if we had one. The person must be a VICA member with his \$9 dues paid prior to a certain date. The school must also be a recognized VICA chapter. It would take a little paperwork to make this possible.

Mr. Khan suggested that we need to promote this to our students, giving them information about it so they can register if they wish to do so.

Mr. Hughes mentioned that the American Welding Society (AWS) also has a competition for high school and post secondary students. Mr. Hughes could provide OCC with the information about these competitions. Mr. Carney added that the cost is nothing, and the winning school receives \$1000 for its welding program. The individual student also wins a money prize. This is put on by the Detroit section of the AWS.

16. **That Mr. Karl Lis explore the possibility of offering ATW 112, Introduction to Gas/Arc/MIG/TIG Welding, as an extension class at Oakland Technical Center - Southeast.**

This was discussed under Recommendation 9. It was agreed that this would not be a good idea at this time.

17. **That OCC pursue the possibility of providing training to industry, using flexible scheduling and customized training to fit the needs of companies.**

It was reported that Mr. David Gruzin of General Motors Truck Group was interested in possibly sending employees to OCC for skill development in welding technologies. Mr. Phil Crockett reported that OCC's Manufacturing & Technological Services prepared a bid for this project, but the bid was too high, and Mr. Gruzin took his business to Macomb Community College. Mr. Crockett assured the group that this will not happen again.

18. **That Mr. Bob Hughes arrange for subcommittee members to visit Washtenaw Community College to learn what they have done to make their Welding Program successful and how OCC could do the same.**
19. **That, after visiting Washtenaw Community College and contacting Ferris State University regarding articulation, the subcommittee put together a plan for a new two-year Welding Program, to include curriculum, equipment needs, and job availability for graduates. That an attempt be made to obtain the support of campus and College administration for this plan, as well as possible funding for its implementation from millage money budgeted for new programs.**

Mr. Hughes reported that he contacted Washtenaw and learned that they have been very busy over the summer providing training to industry. A group from OCC could go and tour any day, Monday through Thursday. They have a great facility and a budget of over \$75,000 per year.

Mr. Sleva commented that his budget for OCC's Welding Program is \$6,000 per year.

Mr. Carney pointed out that Washtenaw has a very large facility but few graduates. People take a couple of classes to get a skill, and then go and get a job. They may not be going by the graduation rate in setting the budget. We need to learn how they are supporting their program and where their money is coming from.

Mr. Sleva and Mr. Hughes are trying to work out a time for the subcommittee to visit Washtenaw. Mr. Hughes will contact Mr. Larry Vanderstelt regarding making a visit during the day. They will attempt to make the visit before the end of the Fall 1997 term.

Current and Future Trends: Feedback from Industry

Mr. Khan asked the group for their comments regarding current and future trends in the welding industry.

Mr. Carney commented that the statements in the previous Welding Needs Assessment about the decline of the welding industry are not correct. Mr. Khan responded that, when a new needs assessment is done on the proposed new Welding Program, Mr. Sleva needs to be directly involved with OCC's Office of Institutional Planning & Analysis to design the questions to be asked of those surveyed. That will have an important effect on the results of the needs assessment.

Mr. Stoughton reported that, at Lincoln Electric, they are unable to make equipment fast enough to meet the demand. Companies must wait six weeks to receive the equipment they have ordered. It is clear that the welding industry is growing, not declining.

Mr. Carney commented that the welding industry is becoming more and more automated, but there is still a need for the basic skills.

Mr. Khan asked whether we are preparing students to work in an automated environment. Mr. Stoughton responded that people who understand welding will be ahead of those who just know how to operate a robot or other equipment. We need to provide students with a good background like we are doing, but also add enough to give a solid associate degree, so companies can recognize the value of OCC's degree.

Mr. Hughes reported that Governor Engler was quoted in the Oakland Press as stating that teaching welding in high school is outdated for the 21st century. Instead, students should be taught to repair robots. Mr. Hughes pointed out that, while this may be true for the automotive industry, which is mostly automated, welding is still needed in places where robots cannot go. Graduates from Mr. Hughes's high school program can get jobs earning \$6 - \$9 an hour. However, to earn \$40,000 a year, at least an associate degree is needed.

Mr. Stoughton commented that there is a need to inform students about how much money can be earned in the welding field. A person with an associate degree in welding technology will be able to earn more money than someone with a bachelors degree in liberal arts.

Mr. Khan asked the group about future trends in the welding industry. They responded that there is a trend toward automation, but workers will still need to understand the basic principles of welding in order to program the machine.

Mr. Carney stated that students need to understand welding and manufacturing, the environment of both the shop floor and the office. They need to be capable of project management, understanding the processes involved, as well as having an introduction into automation.

Mr. Carney suggested that the subcommittee needs to contact schools with welding programs and ask for a copy of their curriculum and for information about their graduates.

Mr. Khan pointed out that companies are looking for employees who can read, write, and present. More and more, industry is demanding more than just technical knowledge.

Mr. Lis suggested that there is a need to market the program to high school counselors. High school welding programs are struggling because counselors steer students away from them.

Mr. Khan suggested that Mr. Sleva should be the contact person for the work the committee is attempting to do to improve the program. All information should be directed to him, and he will then pass it on to other OCC staff who need to be involved.

New Advisory Committee Recommendations

20. That OCC seek to acquire the necessary equipment to teach an effective Metallurgy course.
21. That a new needs assessment be done based on a newly developed program which would meet the needs of industry and be transferable to Ferris State University.
22. That a brochure be created to attempt to market the existing Welding Program. That the existence of articulation agreements be emphasized in the brochure.
23. That OCC encourage its Welding students to enter the American Welding Society competitions.

Respectfully submitted,



Ruth Springer



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