



OAKLAND
COMMUNITY
COLLEGE

Auburn Hills Campus
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WELDING TECHNOLOGY ADVISORY COMMITTEE MEETING

October 14, 1996

Present: Steve Atma, Faculty, OCC
Sue Barrett, Counselor, OCC
Michael E. Cain, Aluminum Company of America (ALCOA)
Patrick R. Clayton, ABB Flexible Automation
Al Dillon, Oakland Technical Center Northeast
Troy Gurkin, The Lincoln Electric Company
Jim Hannemann, Oakland Schools
Bob Hughes, Walled Lake Schools
Booker Hurner, General Motors Metal Fabricating Division
Michael T. Jackson, General Motors Milford Proving Grounds
Sally Kalson, Coordinator of Cooperative Education, OCC
Karl Lis, Chrysler Corporation
Dr. Carlos Olivarez, Dean of Academic and Student Services, OCC
Stephen Richardson, Lectron Products Division/Eaton Corp.
Stephen A. Slavick, Harvard Industries, Trim Trends Division
Bob Sleva, Paraprofessional, OCC
Ruth Springer, Secretary, OCC
Doug St. Clair, Faculty, OCC
Larry Vanderstelt, Wilson Welding & Medical Gases, Inc.

1. Welcome and Introductions

Dr. Carlos Olivarez welcomed the group and expressed appreciation on behalf of Oakland Community College for their willingness to serve as members of this advisory committee. He invited those present to introduce themselves.

2. Review of Curriculum

Mr. Bob Hughes reviewed the curriculum, explaining what is taught in each class.

3. ATW 100, Welding Fundamentals

It was explained that ATW 100 is basically a lecture class, providing an introduction to the theory of all four welding processes, as well as such things as welding symbols and metallurgy. The class has never been run because OCC requires a minimum of 15 students in order to run a class, and that many students have never signed up for this class.

Mr. Steve Atma stated that such a theory class is needed because there is not enough time during the other classes to adequately cover the theory contained in the textbook, in addition to providing the essential hands-on training in the welding processes. We need to discover how to interest students in enrolling in the complete Welding Program, including this basic theory class.

The group agreed that this class is important. It is not possible to perform effectively on the job without an understanding of welding symbols, blueprint reading, and other subjects covered in this class.

4. Welding Certification

Dr. Olivarez asked the group whether students need a Certificate in Welding in order to be employed. The group responded that certification such as that provided by the American Welding Society is helpful in seeking employment, but it is not necessary to have a certificate or degree from a community college in order to be hired for an entry level position.

Dr. Olivarez asked whether we can certify people here at OCC. The group responded that OCC does not have the necessary testing equipment. Also, a qualified person is needed to do the testing. There are various codes for certification in various kinds of welding. It would not be practical to do testing and certification in all these different areas. However, if students were able to complete their studies with certification of some kind, it would probably give them confidence and help them do better on the testing which would be part of the hiring process in seeking a job in the field. Although companies generally do their own testing, they often look for people who have been certified.

5. Need for Articulation

A question was raised as to what would motivate a graduate of a secondary school welding program to enroll in OCC's Welding Program. Mr. Hughes responded that students would enroll at OCC if they believed they would learn additional material which had not been covered in their high school program. There is a need for a Tech Prep program in Welding to provide students with a continuous

educational experience from the secondary level through the community college and on to a four-year institution. Currently OCC is providing essentially the same type of training as that which is provided at the secondary level.

Mr. Jim Hannemann commented that OCC provides training in welding to those who did not receive that training in high school. There are actually two potential student populations: those who have had no previous training, and those who have completed a high school welding program and are ready to be trained at the technician level.

A question was raised as to the purpose of OCC's Welding Program: Does OCC want to train welders or welding technicians? The group agreed that, in addition to the fundamentals of welding, a welding technician should have training in such things as welding metallurgy, code work, basic electronics, quality control, and how to use a robot.

The group agreed that OCC should have a two-year Welding Program which would be equivalent to the associate degree program at Ferris State University, so that OCC's program would articulate with Ferris's. However, OCC's program was reduced from a two-year degree program to a shorter certificate program a few years ago due to the lack of student interest in completing the degree program.

The group recommended that OCC review the two-year program offered at Ferris to determine what would need to be done to provide an equivalent program here. It was also suggested that OCC look into the possibility of articulation with related programs at Sienna Heights and Wayne State University.

It was suggested that a two-step program could be developed. One level would prepare students for work as a welder. The second level would provide training as a welding technician.

It was pointed out that entry-level welding jobs pay \$7-10 an hour. With experience, the pay increases to \$12-14 an hour. People are not interested in taking an extended college program in order to earn that level of pay. However, a good welding technician earns \$14-22 an hour. If OCC had a program which would qualify people to make a better salary, more students would enroll.

Mr. Patrick Clayton suggested that people from industry be encouraged to volunteer to come in and talk to students to help them understand that there are better salaries available if they continue their studies.

5. Exam for College Credit

Mr. Karl Lis reported that, for those with documented experience in industry, there is a one-day, eight-hour exam which can be taken at Ferris State University. Successful completion of this exam provides 30 hours of credit toward a degree program at Ferris or other colleges. Perhaps OCC would be able to offer these exams here.

6. Need for Piggybacked Classes

Mr. Hughes reported that Welding classes are often canceled because they do not have the minimum 15 students enrolled. Students become frustrated because the class they needed has been canceled and may decide to go elsewhere to school. Mr. Hughes suggested that up to four courses can be taught at the same time, because so much of the class time is spent in hands-on instruction. He suggested that the four basic courses could be taught one night, with the more advanced classes being taught another night.

Dr. Olivarez responded that the faculty union contract stipulates that no more than two courses can be taught by the same instructor at the same time. However, an exception could be requested from the OCC Faculty Association in order to teach more than two Welding classes at a time.

7. Providing Training to Those Already Employed in the Industry

The group agreed that there are many who are already employed in the industry who could benefit from receiving further training. If OCC provided training which was on the cutting edge of welding technology, both employers and employees would see the value of pursuing this training. Advanced training should include such things as inspection, problem solving, and analyzing weld failures. It might also be good to add some Quality Assurance classes. It is important in industry today to be able to determine why a weld is breaking and make recommendations for correcting the problem.

8. Recommendations Regarding Lab Equipment

Following a tour of the Welding Lab, Dr. Olivarez asked the group for feedback regarding the lab equipment and any suggestions they might have for needed change.

The group agreed that OCC has a large lab which can accommodate 25-30 people. There is a good amount of basic equipment of the type used in a typical secondary school program. However, OCC does not have the type of equipment which is used in industry today.

In order to teach the subjects included in the catalog course description for ATW 841, Pipe Welding, the College should obtain a Rockwell tester and analyzing equipment. This equipment could also be used in the ATW 100 course and in Metallurgy classes. There is a need for equipment used in inspection.

Mr. Hannemann suggested that basic welding classes could be taught using the facilities at the Oakland Technical Centers, either through secondary level adult education programs, or through OCC credit classes being taught at those locations. Then the on-campus lab space could be used for the latest equipment that is being used currently in the industry. He expressed the belief that the resources are available, through the taxpayers as well as business partnerships, to equip such a lab.

Mr. Lis stressed the importance of resistance welding, stating that three-fourths of the members of the American Welding Society in the Detroit area are involved in resistance welding. No school in the area has a good resistance welding program. The field is growing, but no school is equipped to provide the needed training. Mr. Lis believes there would be support within the Welding Society to assist OCC in obtaining the equipment needed to provide this training.

Mr. Steve Slavick agreed, pointing out that one reason why companies are eager to hire graduates of the Ferris State Welding Program is because they have been trained in resistance welding. Mr. Clayton stated that ABB Flexible Automation sells a large number of spot welding robots. Many shops are involved in resistance welding and are training their employees themselves.

The group agreed that there is no room in the present Welding Lab for a robot, but suggested that Welding students could take classes in the Robotics Lab.

9. Need for Marketing

The group agreed that there is a need to market the Welding Program directly to high school classes, as well as to companies whose employees might benefit from additional training. They suggested that a brochure be developed for this purpose, and that other methods be explored for advertizing the program.

Dr. Olivarez commented that we should probably concentrate first on developing a higher level program, and then make a major effort in the area of marketing.

10. OCC Mission and Purposes

Dr. Olivarez pointed out that a copy of OCC's new statement of its Mission and Purposes has been included in the packet which each member received at the beginning of the meeting. He requested that members review this document and be prepared to provide comments and feedback at the next advisory committee meeting.

11. Possibility of Extension Classes

Mr. Lis suggested that OCC consider the possibility of offering the basic Welding courses as extension classes at the Oakland Technical Centers. Mr. Hughes agreed, pointing out that no adult education welding classes are currently being offered there, due to a lack of state funding, so the welding labs are not being used in the evening. That is exactly the time when OCC's Welding Lab is busiest. Mr. Hughes stated that the ATW 100 course could be taught more conveniently at the Technical Centers, since the necessary items, such as handouts, brochures, and films, are all available there.

12. Next Meeting

Dr. Olivarez thanked the group for their attendance and input. He suggested that the next meeting would probably take place sometime late in the Winter 1997 term.

The group expressed the need for a meeting much sooner than that. A number of members decided to meet on their own as a subcommittee to prepare specific recommendations for the Welding Program. They agreed to meet at 4:00 p.m. on November 18 in the conference room at Wilson Welding.

13. American Welding Society Membership

Mr. Lis presented the possibility of OCC becoming an institutional member of the American Welding Society. This would provide the College with a number of benefits, including the right to use the AWS logo on literature and promotional items.

Dr. Olivarez expressed an interest in doing this. Mr. Lis will provide him with the information needed to become an institutional member.

Committee Recommendations

1. That OCC investigate the possibility of doing welding certification testing at the Auburn Hills Campus.
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.
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.
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.
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.
6. That OCC attempt to obtain additional equipment, such as a Rockwell tester, analyzing equipment, and other equipment used in inspection.
7. That OCC attempt to obtain equipment and offer classes in resistance welding.
8. That, once an upgraded program is in place, OCC develop a brochure and use other advertizing methods to market the program, including marketing directly to high school classes.
9. That OCC consider the possibility of offering basic Welding courses as extension classes at the Oakland Technical Centers.
10. That OCC become an institutional member of the American Welding Society.
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.

Respectfully submitted,



Ruth Springer, Secretary