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MACHINE TOOL TECHNOLOGY ADVISORY COMMITTEE MEETING

October 23, 1996

Present: Steve Atma, Faculty, OCC

Sue Barratt, Counselor, OCC

Tom Benedetti, CNC Connection

Dennis A. Brejnak, Speedring Systems

Stan Brish, Exotic Rubber & Plastics Corp.

Phil Crockett, Paraprofessional, OCC

Bruce De Bruyne, Bridgeport Machines Inc.

James Doherty, Midwest Brake

Robert Globke, Oakland Technical Center - Southeast

Robert E. Heidrich, The Clark Heidrich Group, Inc.

Dave Johnson, C. M. Smillie & Co.

Jerry Lehr, Stratasys Inc.

David MacDonald, Special Mold Engineering, Inc.

Dr. Carlos Olivarez, Dean, Academic and Student Services, OCC

Karen Pagenette, Workforce Preparation Services, OCC

Kay Palmer, Research Analyst, OCC

Kathleen E. Smith, General Motors Metal Fabricating Division

Ruth Springer, Secretary, OCC

Paul Wayrynen, Paraprofessional, OCC

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. The group then went on a tour of the Machine Tool Lab.

Globke stressed that employer support is needed in such areas as mentoring and school-to-work programs.

It was mentioned that when the General Motors Powertrain Plant had an open house, many people came to tour the plant. Perhaps if other modern facilities advertised an open house, people would attend and learn about the job possibilities in the field.

Mr. Brejnak pointed out some of the problems he sees in class scheduling at OCC. The College requires that 15 students be enrolled in order for a class to run. However, if classes are repeatedly canceled because they have a few less than 15 students enrolled, it makes it difficult for students to complete their program of study and discourages them from studying here. On the other hand, when two or three classes are taught together in order to meet the required minimum of 15 students, there may end up being up to 30 people in a class, with both basic and advanced students being taught together. Advanced students get neglected because the instructor has to spend more time with the beginners because of safety concerns. This is not fair to the students and can discourage them from continuing their studies here. Mr. Brejnak feels OCC must accept some responsibility for improving this situation if we want to recruit and retain students in the Machine Tool Program.

It was suggested that the College needs to be working more closely with local professional organizations, such as the Detroit Tooling Association, National Machine Tool Builders Association, and the Society of Manufacturing Engineers.

5. Review of Curriculum

It was suggested that the course descriptions for the first four Machine Tool classes, ATM 110, Introduction to Machine Tools; ATM 112, Machine Tool Operation I; ATM 114, Machine Tool Operation II; and ATM 116, Machine Tool Operation III; sound nearly the same, except for the progression from basic to advanced skills. Perhaps the same material could be covered in three classes rather than four. At the least, the course descriptions could be made more specific, so it is clear what is covered in each class.

The group agreed that blueprint reading and math skills are needed on the job right from the start.

6. Review of Equipment

The group pointed out that more space is needed in the lab, and the equipment needs to be updated. Mr. Wayrynen agreed that more space is needed to put in more equipment.

Mr. Brejnak mentioned that, when he teaches Machine Tool classes, he usually has three or four students on a machine. He tries to have them work as teams and critique each other's work.

The group commented that OSHA would be pleased with the safety standards that are maintained on the lab equipment.

The group suggested that industry might be willing to donate equipment, or provide it at cost, if OCC can show them how they will benefit by doing so. One possible benefit to industry might be that, in the future, when students are working as managers in industry, they will remember the equipment they learned on and perhaps be more inclined to purchase that equipment for their company.

Mr. Bruce DeBruyne mentioned that Bridgeport provides equipment at cost to educational institutions. He reported that they are currently giving thousands of dollars of software at a cost of \$500. Mr. Paul Wayrynen responded that the Machine Tool Lab does not have a machine that can use the more advanced software. He stated that students tell him their children have better computers than those in the lab.

Mr. Tom Benedetti pointed out that simulation can be used to teach students how to operate a machine before they actually begin to use it. Several students can be doing the simulation on computers rather than all waiting in line to use the actual machine. OCC needs to take advantage of the simulation which is available now. The College should obtain the best possible computers and then have a plan to upgrade two or three each year on a rotating basis, so they do not all become obsolete and need to be replaced at the same time. Computers are generally good for two to three years before becoming outdated. He strongly encouraged OCC to seek donations and partnerships with companies in order to obtain equipment that is needed in the lab.

7. Possible Modularized Programs

Ms. Karen Pagenette reported that she will be working on the possible development of programs that are modularized with open entrance. Such programs could be linked with the Oakland Technical Centers and provide fast-track training in such things as math, blueprint reading, and basic skills. Programs could be kept running all the time, and students from OCC's Workforce Preparation Services and industry, as well as regular OCC students, could come in and take the training they needed to obtain particular skills. Ms. Pagenette would like to talk with anyone who might be interested in or have information about this type of program.

Mr. Globke reported that his program at Oakland Technical Center Southeast is modularized. Students are at different levels and must complete one level before proceeding to the next.

8. Possibility of Partnering with Oakland Technical Center Southeast

Mr. Globke suggested the possibility of a partnership between Oakland Technical Center Southeast and OCC. Perhaps the College might want to use his center for a satellite operation, as OCC classes held there would be more conveniently located for those living in southern Oakland County.

9. Conclusion

Dr. Olivarez pointed out that each member's packet includes a copy of OCC's new statement of Mission and Purposes. He asked the group to review the statement in preparation for discussion at the next advisory committee meeting. The next meeting will take place during the Winter or Spring term, 1997.

In response to a question from the group, Mr. Globke suggested that, if advisory committee members are aware of people who could benefit from the type of training offered at OCC, they might give them the brochure on the National Metalworking Skill Standards Project which was distributed by Mr. Globke during the meeting, since both OCC and OTC-SE are sites for the program.

Committee Recommendations

- 1. That ATM 215 and ATM 216 be removed from the Numerical Control curriculum and replaced with more current subject matter.
- 2. That OCC attempt to alleviate the potential problems caused by the cancellation of classes with less than 15 students enrolled, and the piggybacking of classes in order to achieve the required enrollment of 15.
- 3. That OCC attempt to work more closely with local professional organizations, such as the Detroit Tooling Association, National Machine Tool Builders Association, and the Society of Manufacturing Engineers.
- 4. That OCC consider the possibility of teaching the material covered in ATM 110, ATM 112, ATM 114, and ATM 116 in three classes rather than four. If this is not feasible, then course descriptions for all four classes should be made more specific, so it is clear what is covered in each class.
- 5. That equipment in the Machine Tool Lab be updated.

- 6. That more space be allocated for Machine Tool lab equipment.
- 7. That OCC work with industry in an attempt to obtain updated equipment by donation or by being allowed to purchase the equipment at cost.
- 8. That the best possible computers be obtained for the Machine Tool Lab.
- 9. That simulation be used in instruction.
- 10. That OCC consider the possibility of a partnership with OTC-SE, perhaps to include the possibility of holding classes there.

Respectfully submitted,

Ruth Springer

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