



OAKLAND COMMUNITY COLLEGE

AUBURN HILLS CAMPUS • 2900 FEATHERSTONE ROAD • AUBURN HILLS, MICHIGAN 48057 • 313-853-4200

May 30, 1986

Dear Fluid Power Advisory Committee Member:

In attendance at the Fluid Power Advisory Committee meeting on May 29, 1986 were the following members:

Ken Brown - CPC Pontiac  
George Doig - Doig Associates  
Barbara Einhardt - OCC  
Harvey Eschenburg - OCC  
Steve Goulette - Aeroquip  
George Nordenholt - Vickers  
Dolph Wright - General Motors

- 1) Harvey Eschenburg presented an overview of the Fluid Power curriculum. The program includes both hydraulics and pneumatics components. Supportive classes include Geometry-Algebra and Plane Trigonometry which are important basics to understanding the program concepts.
- 2) Dolph Wright presented the partnership which is being developed with Rexroth Corporation and Oakland Community College. OCC will purchase eight test stands and peripheral equipment and will become the Midwest Training Center for Rexroth.
- 3) Committee members commented on the lack of good textbooks to teach pneumatics. There does not appear to be an up-to-date source for this material. Dolph Wright and George Doig hope to compile materials for instruction.
- 4) The suggestion was made to develop a course to familiarize students with electrical controls since electronic equipment is being moved into shops with greater emphasis.
- 5) The goal of the program is to graduate students as engineering technicians who are able to calculate and understand the design of the system. Students need to understand circuitry in order to troubleshoot.
- 6) Committee members toured the Fluid Power Labs and completed program surveys.

Sincerely,

*Barbara Einhardt*

Barbara Einhardt  
Admin. Assistant:  
Dean of Career Education

c: Dr. Gram  
Dr. Rose

**3. a. Summary of Evaluation Perceptions by Administrators and Faculty**Number of Administrators  
and Faculty Participating 3**Comments:**

- Goals and objectives for individual courses need to be improved and expanded
- Good use of small group instruction
- Supportive courses are relevant to needs of the students
- Adequate coordination with business and industry
- Plans to update the lab/equipment for Sept, 86 are excellent
- Job placement of students is improving
- There is a high level of interest in this program from area industries
- The Advisory Committee is actively involved with this program
- This program functions effectively in supporting the curriculum needs of the apprentice programs
- Part-time instructors are adequate to outstanding
- Advanced courses need to be offered and staffed
- The program needs to be updated to include electro-mechanical curriculum with lab experiences
- The program needs a dedicated faculty person who would be responsible for teaching the courses and overseeing the curriculum and lab

**Recommendations:**

- Develop improved goals and objectives for courses in the program
- Implement more follow-up on graduates
- Continue good coordination with business and industry
- Continue developing Co-op sites
- Marketing of this program needs to receive more emphasis
- Update the lab with current equipment in electro-mechanical units
- Designate a full-time instructor to teach and oversee the curriculum and lab
- New curriculum and lab exercises need to be developed and integrated within the program
- Advisory Committee meetings need to be held on a regular basis



**3. b. Summary of Evaluation Perceptions by Students**

Number of Students  
Participating 48

**Comments:**

- Quality of instructors is not always good
- More hands-on time is needed in labs

**Recommendations:**

- Offer more courses through-out the year, they seem to be primarily run in fall semesters
- Provide more work experience with employer supervision
- Provide more career planning information and job success information of former students
- Provide more assistance in lab
- Increase number of work stations
- Update training equipment
- Update instructional materials (Pneumatics book is very poor, was not even used by instructor)

**3. c. Summary of Evaluation Perceptions by Advisory Committee Members**Number of Advisory  
Committee Members Participating 6**Comments:**

Major strengths of the Fluid Power Program include the following:

- Good quality instruction
- Good input from industry
- Program draws on experienced professionals in the field for part-time instructional staff
- Students learn a good basic knowledge of hydraulics and trouble shooting
- Good "hands-on" experience
- Exceptional key faculty
- Good access to needs of local automotive facilities
- Strong support of local industry
- Waiting job market exists for qualified students
- Good training given in performing engineering tests, including set-ups and reports
- Excellent addition to the program to include Rexroth in the instruction
- Program is doing a good job servicing both students and the community

**Recommendations:**

- Update the instructional equipment
- Place greater emphasis on relationship of electrical control to fluid power
- Continue teaching trouble shooting
- Give more focus to specific occupational fields
- Committee needs to meet regularly to review progress and utilize committee's influence in updating the curriculum and equipment

4. Summary of Community College Action Plan - (Include comments on goals and objectives, processes and resources. Use additional sheets if necessary.)

- Goals and objectives will be reviewed and improved.
- The college will place added emphasis on marketing this program.
- The lab will be reviewed for updating the equipment.
- Proposal will be made for a full-time instructor to teach and oversee the program.
- The Advisory Committee will meet on a regular basis.