



OAKLAND
COMMUNITY
COLLEGE

Auburn Hills Campus
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ENVIRONMENTAL SYSTEMS TECHNOLOGY

ADVISORY COMMITTEE

April 11, 1997

Present: James Back, Consumers Energy
Matthew R. Daly, Maintenance Systems Supervisor, OCC
Mark Findora, Premium Air Systems
E. John Geist, Honeywell, Inc.
Fred M. Gerow, SunSpace Energy Systems
James A. Gibbons, St. Joseph Mercy Hospital
Ed Haag, H. A. Sun Heating and Cooling Inc.
Sally Kalson, Coordinator of Cooperative Education, OCC
John P. Keesling, Colombiere Center
Dr. Carlos Olivarez, Dean, Academic and Student Services, OCC
Larry Pennefather, Faculty, OCC
Jesse Riojas, Oakland Technical Center Northwest
Dr. Debra Rowe, Faculty, OCC
Ruth Springer, Secretary, OCC
David J. Tetreau, Landis & Staefa

Preliminary Matters

Dr. Carlos Olivarez welcomed the group and invited the members to introduce themselves. The minutes of the Environmental Systems Technology Advisory Committee meeting held on October 17, 1996, were reviewed and approved as written. The minutes of the follow-up meetings of OCC members of the advisory committee held on January 29 and February 5, 1997, were reviewed, and a progress report was given on each committee recommendation, as follows:

Progress Report on Advisory Committee Recommendations

1. **That a co-op class be developed for inclusion in the Environmental Systems Program. Another possible way of providing students with on-the-job experience could be through an affiliation agreement with a large company, such as OCC's medical programs have with hospitals.**

Ms. Sally Kalson reported that, because co-op is being expanded into a number of programs, she will ask the Registrar for a numerical co-op designation that would be consistent for all programs.

A question was raised as to whether another course would be deleted from the program and the co-op course added in its place, or whether the program's total credit hours would be increased. It was suggested that it could be made an elective option. Ms. Kalson reported that, in the Computer Aided Design and Drafting Program, co-op classes are listed as required supportive courses. However, students who are already working are allowed to select another class in place of co-op. That would be her recommendation for the Environmental Systems Technology Program as well.

Mr. Larry Pennefather stated that he would need to meet with Ms. Kalson during the Spring term to work out the details of including a co-op class in the curriculum. This would be part of a major curriculum revision which he is in the process of doing. Dr. Debra Rowe mentioned that she also would like to attend the meeting regarding the addition of the co-op class.

2. **That OCC obtain the necessary equipment to teach AET 251, Direct Digital Controls.**

- 2a. Dr. Carlos Olivarez will request mailing labels for all HVA students who have taken classes in the last three years. Mr. Pennefather will write a letter to those students inviting them to meet with himself or Dr. Debra Rowe to arrange a course substitution if they have been prevented from graduating by the fact that AET 251 and TER 141 have not been offered.

Dr. Olivarez reported that he has requested mailing labels for all students in the Advanced Heating, Ventilation, Air Conditioning and Refrigeration Technician Option who have taken classes in the last three years. The letter described above has been sent to those students.

- 2b. Dr. Olivarez will work to clear up the misunderstanding that will allow the purchase of one DDC laptop Building Automation System.

Dr. Olivarez reported that OCC's Department of Information & Telecommunications Systems has recently expanded the list of computers approved for purchase within the College. Dr. Rowe pointed out that the laptop that is needed would be dedicated to work in the lab and should not need to meet the same requirements as computers being used for more general purposes.

More follow-up will be needed to attempt to purchase a Direct Digital Controls (DDC) laptop Building Automation System.

Mr. David J. Tetreau mentioned that his office is currently upgrading their office server. He offered to ask the general manager if there might be a laptop which will not be in use as a result of the upgrade which could be donated to OCC.

- 2c. Mr. Matt Daly will request that, as a part of the process of purchasing a new DDC system for the College, the specifications be written to include a station in the Environmental Systems Lab at Auburn Hills and one in the Alternate Energies Lab at Royal Oak to be used by students to observe the system.

Mr. Matthew R. Daly reported that a committee is currently in the process of selecting a DDC vendor for future DDC projects. During the committee discussions, Mr. Daly has made the suggestion stated above. He also mentioned this as a question when the vendors came in with their presentations. When a particular vendor has been chosen in a few weeks, Mr. Daly will bring up this matter again.

3. That OCC take the necessary steps to offer TER 141, Air Conditioning Systems Testing, Adjustment and Balancing.

Dr. Olivarez mentioned that a partial response to this recommendation was included in the discussion under no. 2a above. An additional response is included under recommendation no. 4 below.

4. That OCC seek to obtain the high tech lab equipment needed by the program through partnerships with companies.

- 4a. Mr. Pennefather will contact Ferris State University about the possibility of their Environmental Systems courses being offered at OCC, with Ferris assisting in the supply of needed lab equipment, including software.

Mr. Pennefather reported that he has not contacted Ferris.

- 4b. Mr. Pennefather will contact Ms. Cheryl Kozell, Executive Director of Workforce Development, in regard to working with her to obtain donations of equipment, including software.

Mr. Pennefather reported that he has not contacted Ms. Kozell about this. He said he did contact Johnson Controls about a possible partnership, but was not given any specific response.

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Dr. Rowe suggested that there is a need to do some research before asking for equipment. There is a need for a subcommittee made up of people who either work with this equipment or teach it, or both, who would be able to meet with Dr. Rowe and Mr. Pennefather and tell them what is needed in industry and what is in use in teaching at other colleges. Such a subcommittee could help establish a list of what equipment is needed in the lab and also provide ideas regarding curriculum. Then we would be ready to approach companies to request donations.

It was decided that the subcommittee would be composed of Mr. Fred M. Gerow, Mr. E. John Geist, and Mr. Tetreau, as well as representatives from Ferris State University and Trane.

5. **That Mr. Pennefather be given release time to develop curriculum, contact companies about obtaining equipment, and take training in the advanced systems which need to be taught.**

Mr. Pennefather reported that he would like to take release time during Spring/Summer 1997. During this time, he would like to take training in DDC.

Dr. Rowe agreed that it would be good if OCC could send Mr. Pennefather for training during the summer. She also pointed out the possibility that, rather than teaching the DDC classes himself, Mr. Pennefather might want to use other people who are already teaching those subjects, which would allow him to spend more of his time on such things as marketing the program.

Dr. Rowe mentioned that she would like to receive release time for one credit for Fall 1997.

6. **That Mr. Pennefather attempt to find possible instructors from industry to teach the most advanced classes, such as AET 251 and TER 141.**

Mr. Pennefather pointed out that OCC cannot offer these classes without the necessary equipment. It was estimated that the equipment cost for TER 141 could be \$10,000. Obtaining the equipment for AET 251 would be an additional expenditure.

Dr. Olivarez suggested that perhaps if the equipment was obtained for instructional purposes, it could be used on campus as well. This would be excellent training for students to participate with employees in investigation. It should also be easier to obtain the money through the College budget process if the equipment could be used on campus as well as in the classroom. Mr. Daly responded that an electronics technician would be the most likely person within the College to do this work if the equipment was available. He expressed the view that it might be difficult to use teaching tools to operate the campus, but if the idea was presented properly, it might be possible.

Dr. Olivarez asked Mr. Daly to approach the appropriate people within the College with this idea and report back to the group.

Mr. James Back reported that, at Consumers Energy, they have asked customers if they could bring a class to do the work which was needed by that customer, at no charge to the customer. This provided excellent experience for the students. Perhaps OCC could do something similar.

Mr. John Keesling suggested that if OCC is not able to find a lab for these classes, he would be able to provide space and a classroom for them.

Dr. Rowe suggested that perhaps the vendor from whom OCC buys the equipment could provide training on it.

Mr. Daly asked about a gentleman who had inquired about the possibility of teaching the DDC class. Mr. Pennefather responded that he would be calling the person.

7. That OCC attempt to arrange for clinicals, such as are used in the nursing field, in which an entire class could go into the field and use the equipment.

Discussion on this subject is included under no. 6 above.

8. That OCC continue to train students on oil-based equipment.

This training is ongoing and will continue to be included in the curriculum.

9. That a sheet metal/ductwork course be included in the curriculum.

Mr. Pennefather reported that he will be working on this as part of his release time during the Spring term. Mr. Jesse Riojas believes that a 3-credit class would be adequate.

Mr. Daly pointed out that there is a space problem in the Environmental Systems Lab and asked where such a class would be held. Mr. Pennefather responded that he has written a memo requesting that room A-350 be reallocated for this purpose when classes currently held in that room are moved to F Building after its renovation is complete.

Dr. Rowe suggested that, when the time comes for students to do sheet metal projects, it might be possible for them to do the work for a nonprofit organization that has a need for that type of work. Perhaps energy management students could do audits, and then sheet metal students could do the work.

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Mr. Riojas pointed out that there are red tape and liabilities involved in doing sheet metal work outside the classroom that would not be involved in energy audits. Where Mr. Riojas teaches at Oakland Technical Center Northwest, Mr. Dan Manthei is the administrator who worked out these issues for the students there. Dr. Rowe suggested that he be contacted to see how these matters were handled there, so that OCC could do the same.

Dr. Rowe requested that any proposed curriculum changes be presented to the advisory committee before they are taken through the College curriculum process. Dr. Olivarez explained the curriculum process and asked that, before any internal balloting takes place on proposed curriculum changes, Mr. Pennefather provide the advisory committee with copies so that members may review the proposals and provide input.

10. That OCC take steps to expand the Environmental Systems Lab to have more space for needed equipment. That this expansion be made a part of the master plan currently being created for the Auburn Hills Campus. That a new building be requested for the Environmental Systems Program. If it is not possible to have a new building, that additional balcony space be added to the lab.

10a. At the February 6 meeting of the Auburn Hills Facilities Committee, Dr. Olivarez will present a request for additional space for the Environmental Systems Lab, once space is vacated by the move into the newly renovated F Building.

Dr. Olivarez reported that he and Mr. Pennefather presented a plan to the Facilities Committee to expand the current Environmental Systems Lab and to try to utilize A-350A for this purpose, as well as a plan to expand the current lab with balconies around the perimeter.

10b. At the same Facilities Committee meeting, Dr. Olivarez will present a request that the possibility of expanding the current square footage in room A216 be explored with an architect.

Dr. Olivarez will follow up on this.

10c. Dr. Olivarez will contact Dr. Martha Smydra, Royal Oak/Southfield Campus President, about the possibility of putting equipment needed to teach the introductory Environmental Systems classes in the Alternate Energies Lab at Royal Oak or Southfield.

10d. In preparation for discussion with Dr. Smydra, Mr. Pennefather will provide Dr. Olivarez with an estimate of square footage, utilities, and equipment that would be needed at Royal Oak or Southfield.

Dr. Rowe explained that Royal Oak has an expansion plan in which we would like to be included. Mr. Pennefather needs to figure out what he needs to teach those introductory courses using equipment which could be stored in closets so the room could be used for regular classes at other times.

- 11. That OCC attempt to become involved in revenue producing programs and other activities which might also make employers more aware of the College, such as: offering professional development seminars; becoming a certification test site through ACCA; becoming a site for meetings of ASHRAE.**

Dr. Rowe pointed out that some of OCC's existing courses would be beneficial to industry. Mr. Pennefather would like the Energy Management course to be offered at Auburn Hills as well as at Royal Oak. Perhaps it could be offered as a five-week Friday/Saturday morning course and/or as a specialized session for industry. When we begin marketing, we should keep that in mind as a possibility, since we have information on energy management that local companies do not have which would be beneficial to them.

- 12. That any needed curriculum adjustments be made to ensure that students have the basic skills in math, English, and technical support which they need to be successful in the Environmental Systems Program. This could include requiring students to pass a proficiency test or take the needed classes outside the program requirements.**

This will be addressed as part of the ongoing curriculum review.

- 13. That OCC update staff and curriculum to address the need for instruction in air quality, building automation, and energy management control strategies.**

Mr. Gerow pointed out that all these subjects could be covered in the current Energy Management class. Dr. Rowe responded that they are all included in the class. It is important that we continue to offer the class and to ensure that all Environmental Systems students are required to take it.

- 14. That steps be taken to include in the curriculum instruction in Business Communication.**

This will be addressed as part of the ongoing curriculum review.

- 15. That steps be taken to include in the curriculum instruction in interpersonal skills, problem solving, and customer relations.**

- 15a. Ms. Kalson and Ms. Shelley Kaye will draft a proposal for a new course with possible general education designation which would provide instruction in such things as interpersonal relations with co-workers and customers, written and oral communication, problem-solving in unfamiliar situations, personal management, and personal presentation skills, including interview skills.

Ms. Kalson reported that she has started putting together a proposal. She has spoken with Ms. Kaye but has not yet met with her. Ms. Kalson read to the group the outline of her proposal. She plans to meet with Ms. Kaye and with Dr. Rowe, and then with the entire Technology Department.

Mr. Back mentioned that Consumers Energy has found that their employees often do not have the skills needed to deal with customers. Consumers has developed a two-day program to address this issue. He would be glad to assist Ms. Kalson by providing her with information about this program.

Dr. Rowe commented that, once this course has been developed, it should be offered to industry. She suggested that customer service and conflict resolution be added to the list of topics to be covered.

Mr. Riojas mentioned that, in his classes, he is using a 15-minute video presentation regarding customer relations. Ms. Kalson stated that she will plan to view this video.

It was suggested that instructors find ways to inject into every course the concept of being nice to the customer. Hopefully, if students hear it in every class, they will be more apt to put it into practice. Dr. Rowe suggested a staff development initiative for all Technology Department instructors to teach them how to introduce this concept into their classes.

- 16. That a bulletin board be placed in the Environmental Systems Lab to be used for posting job openings.**

Mr. Pennefather reported that he has not requested a bulletin board for the lab. They are currently taping job postings to the wall. He will request a bulletin board.

- 17. That, when the Placement Office receives a job posting in the area of Environmental Systems, a copy be sent to Mr. Pennefather to be posted in the Environmental Systems Lab and to Dr. Rowe to be posted in the Alternate Energies Lab at the Royal Oak Campus. That Mr. Pennefather work with Ms. Mamros on what job titles should be included among those sent to him.**

18. **That the jobs currently included under MOIS code 10 in the Placement Office job postings be divided into sub-categories to make it easier for students to find jobs in their specific field.**
19. **That the Placement Office put job postings on e-mail so students would be able to access them using designated computers.**
20. **That employers be invited into the classroom to present Environmental Systems job openings to the students.**
21. **That the Auburn Hills Campus consider hosting a career fair.**

Dr. Olivarez pointed out that the above recommendations and those following all have to do with how to connect students with jobs. He will be communicating with Mr. Willie Lloyd, Director of Placement and Cooperative Education, about the recommendations which involve that office.

22. **That a mailing be sent to companies once a semester including information about the Environmental Systems Program and the possibility of sending employees to OCC for retraining. Information should also be included about how to post job openings, with a form the company could return with job information.**

Mr. Pennefather reported that he is working on a marketing brochure that could be used in such mailings.

Dr. Rowe and Ms. Kalson stated that they would like to be involved in the creation of the brochure.

Mr. Keesling mentioned that he is involved with the Metro Detroit Building Superintendents Association. This group meets once a month for dinner and a speaker. Mr. Keesling offered to provide OCC with a mailing list of facilities and people who are involved in hiring and purchasing.

Mr. Riojas commented that another important group is ASHRAE. Students are welcome to become members, and this can be beneficial for them in pursuing their careers.

The Metro Detroit ACCA was mentioned as another important group in the area. It was suggested that a file be started of such mailing lists which could be used for marketing the program. Whenever someone attends a conference, the list of participants could be added to the file.

Dr. Rowe suggested that a cross-referenced file of these contacts be maintained by Ms. Ruth Springer in the Technology Department office.

- 23. That a Rolodex with the names of companies and how to contact them be made available to students in the Environmental Systems Lab.**

Mr. Pennefather reported that there is a Rolodex in Mr. Rob Featherstone's office from which possible employment suggestions are given to students.

Mr. Daly suggested that this information be put on a computer database which could be accessed by students. Even an old computer could be used for this purpose. Mr. Pennefather agreed that such a database could be set up by Mr. Featherstone.

- 24. That Environmental Systems Program graduates who have become successful in the field be brought in to speak to students, so students are aware that there are good jobs available in the field.**

Mr. Pennefather will follow up on this recommendation.

New Advisory Committee Recommendations

25. That a subcommittee composed of Mr. John Geist, Mr. Fred Gerow, Mr. David Tetreau, as well as Mr. Darrell DuBay of Landis & Staefa and a representative from Ferris State University, meet with Mr. Daly, Mr. Pennefather, and Dr. Rowe to establish a list of what equipment is needed in the lab and provide ideas regarding curriculum.
26. That the advisory committee be provided with copies of any proposed curriculum changes so that members may review them and provide input before any internal balloting takes place.
27. That instructors inject into every course the concept of being nice to the customer. That OCC consider doing a staff development initiative for all Technology Department instructors to teach them how to introduce this concept into their classes.
28. That a cross-referenced file of mailing lists which could be used in mailings to companies be maintained by Ms. Springer in the Technology Department office.

Respectfully submitted,



Ruth Springer



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