

# COMPUTERS

## OMSI Computer Center open to public

The OMSI Computer Center is open weekends for public use. Individuals may utilize the Center's equipment and software for research projects, self-education, personal business education or game playing.

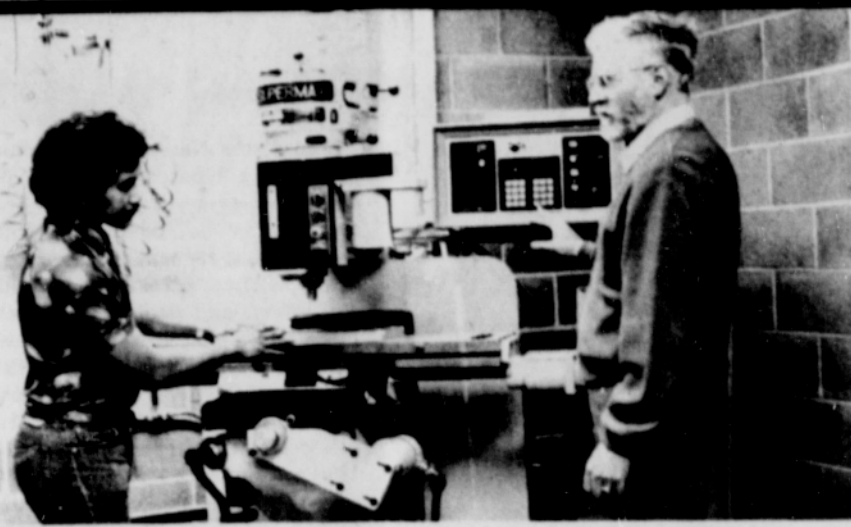
Public hours are Saturday and Sunday, 9:30 a.m. to 2:30 p.m., with ticket sales for the day beginning at 9 a.m. Access is on a first-come, first-served basis, with no advanced reservations.

Equipment available includes Apple II, Atari 800, Atari 400, VIC-20, T199, Timex 1000, HP85, Os-

borne and GIGI computers. Our software library, always growing, contains Visicalc and word processing, as well as Sargon II (chess), Castle Wolfenstein, Olympic Decathlon, Centipedes, PacMan, Missile Command, Caverns of Mars, and many other games.

Users may choose among several computer languages including Applesoft BASIC, Atari BASIC, MBASIC, CBASIC, transForth, graForth, LISP, figForth, Pascal, LOGO, and Pilot.

For more information about the Center contact: OMSI, 222-2828.



## Machine shop student learns computers too

A numerically controlled, computerized milling machine has been added to the Portland Community College machine shop at the Sylvania Campus for use by students enrolled in their sixth term of the machine shop technology associate degree program there.

"The Supermax YCM-20 brings our program to state of the art," says Donald L. Uppendahl, dean of business and industry at the Sylvania Campus.

Basically, the new Supermax machine uses a program recorded on computer cassette tape (or in some instances floppy discs) to make pocket-milled molds which are used for such things as gear housings and parts for component boards.

Machinists instructor Vince Pelly explains that students in machine shop technology learn to program such machines to make the parts. In comparing the new machine to an older one in the shop, Pelly says the new machine can be programmed to produce an elaborate pattern in the mold, whereas with the older one each step must be programmed manually. The Supermax has a memory storage capacity of 999

compared to the old one's one.

"Although milling machines are getting more sophisticated, programming is still done the same way," says Pelly, not to discount the usefulness of other shop machinery. "Learning to operate the new machine makes it possible for our graduates going into industry to use other computer operated tools."

Pelly says a higher skill level for running machines is not needed in today's machine shops. "But, students do need more skills at programming and running a computer," he says. "To run a machine like this, students need to have proficiency in trigonometry as well as good machine skills."

Now that the machine is installed, the college hopes to offer evening classes beginning fall term for machinists in the area who want to update their skills. "We want to encourage participation from the outside," says Pelly. "We expect most of it to be from skilled machinists because of the skill levels required."

"When good students get through these classes they have the most complete training available in this type of program," says Uppendahl.



## How about a career in microelectronics?

A few spaces are still available in Portland Community College's Microelectronics Process Technology Program, a two-year program which leads to an associate of applied science degree.

The program will begin its second year at PCC this fall, and technical courses for the degree are taught at PCC's Cascade Campus exclusively. Approximately 30 students are admitted to the program yearly and must begin with the fall term.

The purpose of the program is to provide trained technicians for the electronics industry. Students receive instruction in integrated circuit and hybrid circuit processing, pack-

aging, laser trimming and testing. Upon graduation they will qualify to work in cleanroom and semi-cleanroom environments involved in integrated circuit or hybrid circuit prototype engineering or production.

A number of prerequisite courses are required and are offered at all PCC campuses. Details of the program are outlined in PCC brochures and in the new fall schedule of classes which will be available in mid-August. Additional information can be obtained from Mary Southworth at the Cascade Campus (283-2541). Early registration is recommended.

## Computer Science at Oregon State

Students at Oregon State University are standing in line to cash in on the nationwide boom in the computer industry—and with good reason.

They are virtually assured of a job upon graduation.

Since 1980, the number of computer science majors at OSU has jumped from 250 to an estimated 550 this year. The increase has been so dramatic that OSU has initiated a pre-computer science program this fall. No longer will undergrads be able to major in computer science. Instead, they must take two years of curriculum, including several specified courses, to be eligible for a major which now requires junior standing and a 3.0 (B) grade point average.

Why all of the sudden interest in computer science? OSU department chairman Fred Tonge says there are several reasons.

"One of the main reasons is, of course, the economy," Tonge noted. "There are jobs waiting for people in computers. Many people are now getting second degrees in computer science—people in forestry or fisheries, for example—for the simple reason that there are jobs available in the field. It's sort of the bright spot in the economy."

"Another thing which helps the continual growth in computers is the glamour," he added. "There has been a lot of national publicity about computers and many people who might have gone into physics or chemistry are now going into computer science."

"The third reason is a general exposure to video games and computers overall," Tonge said. "There are many more computers in high school now and students are much more aware of them."

But the primary reason for the computer science boom is the economy. While job prospects in many professional fields have dwindled, opportunities in the computer science industry are skyrocketing.

"There are supposed to be about four jobs waiting for every person trained on the bachelor level," Tonge said, "and it's about 25 jobs

for someone with a master's degree. National projections show that computer science and computer engineering will have manpower shortages until the 1990s."

Those projections apply primarily to graduates with master's and doctoral degrees, but Tonge said he doesn't "see the bachelor level dropping much, either."

OSU graduates follow the national trend, and though Tonge has no exact figures, he estimates that the department's job placement is close to 100 percent. Opportunities are especially good in southern California and Texas.

Students have been quick to realize the job potential and have enrolled in computer science classes everywhere. While the rush of students has increased the exposure and prestige of OSU's computer science department, it has also brought some problems into focus, Tonge noted.

There is the continual problem of keeping qualified faculty members on campus to teach the ever-increasing student population because of competition from industry. Not only are college professors lured away by higher salaries, but potential future teachers leave school before getting advanced degrees.

Another problem on the OSU campus is access to the computers, according to Tonge.

"Computer time is at a limit on this campus," Tonge said. "The computer center is separate from our department and they are limited for instructional time because of their budget. That fund hasn't really grown in recent years."

Already, the computer center is overflowing with students needing computer time and no relief is in sight. One solution, according to Tonge, could be the use of microcomputers for pre-computer science students, especially in the introductory courses, but funding would have to be obtained.

Meanwhile, the department will use the new pre-computer science program to help ease the crush of students and adapt to the future.

### GOVERNMENT CHANNEL COORDINATOR

#### GOVERNMENT CHANNEL COORDINATOR

Coordinates and produces programs for the State and local government channel. Trains members of the community to produce government programming. Also performs outreach activities to generate interest, involvement and promote specific programs.

Qualified candidates must have a two-year Community College degree in T.V. production, programming or equivalent media experience. Experience in community and educational services preferred. Must have an understanding of State and local government and an ability to work with its representatives and a cross-section of governmental and political community. Creativity is a must and the ability for working towards deadlines is important. Must be willing to work irregular hours and weekends. Should be a fast learner and a self-starter.

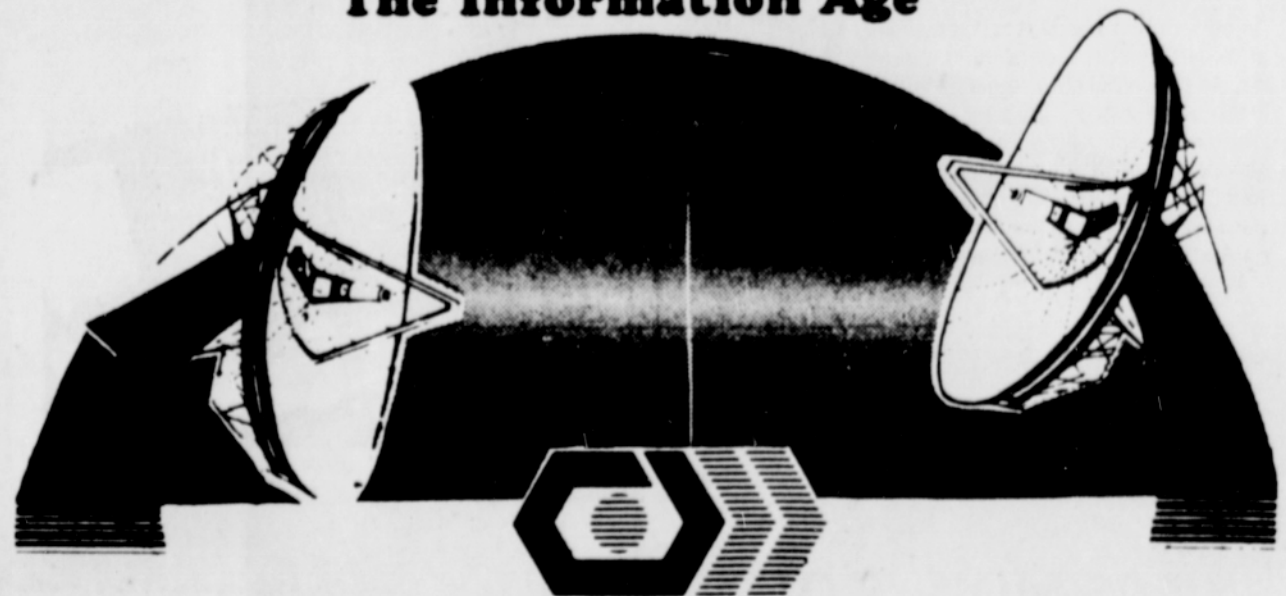
The position requires a variety of organizational and coordinating skills. Contacts in the community are useful. Interested persons should contact Personnel in writing at the following address no later than Friday, August 5, 1983:

**CABLESYSTEMS PACIFIC**  
Attn. Personnel  
3075 N.E. Sandy Blvd.  
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