

Grad's dream comes true

When Peter Mueller graduated from the BCIT Machinist program, then from Computer Numerical Control (CNC), it was an almost fairy tale ending to years of struggle. The hearing impaired machinist took two years of upgrading at Vancouver Community College to meet BCIT prerequisites, had to fight to actually enter the eight-month program and then battled his way through the theory and other challenges within the program to graduate after 14 long months.

But that was just the beginning of Mueller's tale.

"I finished in April of 1994, and things were pretty slow out in the workplace," he recalls through interpreter Mike Boone. "I looked for work for two years — things were pretty sparse out there. I was beginning to run out of ideas and hope." While Mueller says he's not certain his hearing impairment was the reason employers didn't hire him, he feels it certainly didn't make things any easier in his job search.

A year ago Mueller finally found full-time employment with AVCORP, as a CNC operator. This followed nearly a year of regularly going to the company, attending events with a friend who worked there and just constantly applying for positions that came up.

"When I finally got a job, I almost cried, I was so relieved," he says.

He found the job challenging at first because, although he had trained as a CNC operator at BCIT, he was more comfortable with carrying out machinist tasks. Mueller notes that he had put additional pressure on himself, because he really wanted to prove himself and show that his hearing impairment wouldn't matter in a job situation.

"I nearly left, I was so worried about failing," he said. "But the people I work with really helped me learn the job and become comfortable with it, so I stuck it out. Now it's like my dream job — I love it. Most of the time the

computer does most of the work, and I just sit back getting fat!" he jokes.

While the position at AVCORP is his "dream job" Mueller still has one more work-related dream to fulfill. The company recently announced that it will be providing apprenticeship opportunities for employees, and he hopes to be in line for that opportunity.

"Sometimes I feel at a disadvantage compared to a hearing person," he explains. "If I had an apprenticeship, it would be something really substantive that shows I can keep up and do just as well."

That apprenticeship might land Mueller back at BCIT. He hopes that his continued education and



Peter Mueller performing the job he loves at AVCORP.

success will encourage other hearing impaired people to take the chance and try to further their education.

"A lot of deaf people are intimidated by a place like BCIT — we often tend to discourage

each other. I prefer to think more positively. It's a little harder to achieve success when you've got a disability, but you can get there."

— from Karen McDonald

Earn while they learn

More than 200 students are participating in the five trades co-op programs offered at BCIT. Students in these programs spend alternating periods on campus and in full-time paid positions with cooperating employers.

Since the introduction of the co-op program 10 years ago, employers have been very impressed by the caliber of students coming to work for them. Mark Rose from Chevron Canada hires co-op students on a regular basis. He comments: "we have had several BCIT co-op students and have found them all to be interested and enthusiastic to learn. They are willing to try anything and have the skills to assist in repairs and overhauls to an extensive list of equipment. They can contribute to every job they work on."

Another employer, Fred Leung from Granville Toyota, adds: "What I like best about BCIT's co-op students is that they are quite knowledgeable, very eager to learn and are team players with positive attitudes."

A high percentage of trades co-op students are successful in obtaining apprenticeships upon graduation. In fact, some of our graduates have quickly assumed supervisory positions or opened

their own business. By enrolling in their chosen trade, students automatically enter the co-op program that is a mandatory requirement for receiving the two-year diploma.

More than 300 employers have hired trades co-op students and many of these employers are returning to BCIT to hire students in additional work-terms.

— from Cynthia Maclean

Employers wanting more information on BCIT's trades co-op programs can contact **Debbie Power**, for general inquiries at (604) 432-8634, or for program specific information contact the co-op coordinators:

Cynthia Maclean at (604) 432-8291 for:

- > Automotive Service Technician Tool & Die Technician,
- > Auto Collision Repair & Refinishing

Gino Simeoni at (604) 451-7058 for:

- > Industrial Maintenance Mechanic
- > Heating, Ventilation, Air-conditioning & Refrigeration

Shane Hausen and Jeannette Leger are students currently enrolled in the Auto Collision Co-op program.



Lyle Cheng worked as an HVAC & R co-op student at Airstream Heating & Air Conditioning, where he is now an apprentice.

Brad Reid worked as an Auto Collision co-op student at Able Autobody (Surrey) Ltd., where he is now an apprentice.



PAWWS

(Personal and Workplace Wellness and Safety)

Carbon Monoxide Risks

What is carbon monoxide (CO)?

Carbon Monoxide is an odorless, colorless gas that is created when fossil fuels, such as gasoline, wood, coal, propane, oil and methane burn incompletely. In the home heating and cooking equipment, and vehicles running in an attached garage are possible sources of carbon monoxide.

What is the effect of CO exposure?

Mild CO poisoning feels like the flu, but more serious poisoning leads to difficulty breathing and even death from suffocation. Just how sick people get from CO exposure varies greatly from person to person depending on age, overall health, the concentration of the exposure and the length of exposure. Higher concentration is dangerous even for a short time.

Protecting yourself from CO poisoning

The best defences against CO poisoning are safe use of vehicles (particularly in attached garages) and proper installations, use and maintenance of household cooking and heating equipment.

You may also want to install CO detectors inside your home to provide an early warning of accumulating carbon monoxide. However, a CO detector is no substitute for safe use and maintenance of heating and cooking equipment.

Safety tips for protection against CO poisoning

- ❖ If you need to warm up a vehicle, remove it from the garage immediately after starting the ignition;

- ❖ Have your vehicle inspected for exhaust leaks if you have any symptoms of CO poisoning;
- ❖ Have fuel burning household heating equipment (fireplaces, furnaces, water heaters, wood stoves, space or portable heaters) checked every year before cold weather sets in. All chimney connectors should be evaluated for proper installation, cracks, blockages or leaks. Make needed repairs before using the equipment;
- ❖ Before enclosing central heating equipment in a smaller room, check with your fuel supplier to ensure that air for proper combustion is provided;
- ❖ When using a fireplace, open the flue so that proper combustion is provided;
- ❖ Always use CO producing barbecue grills outside. Never use them in the home or garage;
- ❖ When purchasing new heating and cooking equipment, select factory-built products approved by an independent testing laboratory. Do not accept damaged equipment and hire a qualified technician (usually employed by the local oil or gas company) to install the equipment;
- ❖ If you purchase an existing home have a qualified technician evaluate the integrity of the heating and cooking systems, as well as the sealed spaces between the garage and house.
- ❖ When camping, remember to use battery-powered heaters and flashlights in tents, trailers and motor homes. Using fossil fuels inside these structures is extremely dangerous.

— from NFPA document Carbon Monoxide Risks at Home



Student in the first 757 (type) course conducted in Vancouver. The 757 in this photo is owned by Transavia of Holland, leased to Air Transat of Montreal, and maintained in Vancouver by Plane Care Inc.

B757 training lands at Sea Island

BCIT recently sponsored a B757 course on behalf of the Ministry and a local aircraft maintenance company known as SkyTec Plane Care Inc.

An aircraft maintenance engineer must have training on a specific aircraft type before he/she can release the aircraft for flight after maintenance or repair. The courses are usually developed by the manufacturer using a task-based systematic approach to training. A course for sophisticated state-of-the-art aircraft like the 757 typically can be up to 40 days long. The manufacturer normally passes the course-ware on to the carrier for

at-home delivery to its employees.

There are more than 90 aircraft types flying in Canada that require "type training" — most of the aircrafts are owned by the major carriers, who conduct their own training. However, there are some aircraft models where the fleet size is not large or it is spread between many small companies. Training for these companies is usually conducted by Transport Canada approved training organizations. The B757 is just such an aircraft — small fleet size, owned by several small companies. BCIT is an approved training organization and currently supports industry with two

"type" courses: a Bell 206 and a Sikorski S61 helicopter course. We anticipate being approved for the B757 in the future.

An approved training organization called Monarch Airlines of Luton, England, was contracted to deliver the first B757 course in Vancouver. BCIT had several instructors in attendance preparing to deliver the course upon receipt of approval from Transport Canada. Boeing assisted in part of the delivery in Seattle.

We are looking forward to the challenge of developing and seeking government approval for this course.

— from Dave Mitchell

Entrance Award program

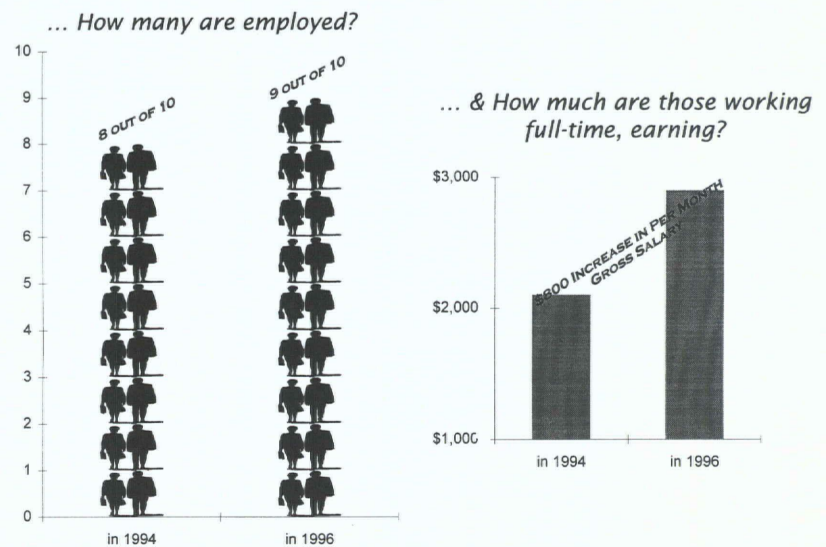
Each year up to 60 high school students in B.C. receive BCIT President's Entrance Awards. Each Award, valued at a full-year's tuition, rewards excellence and encourages high achievers to take up the challenge of BCIT's Technology and Trades programs.

Students must have been attending a B.C. high school during the period September 1996 - June 1997. Recipients will be students who have combined high achievement with active participation in school and/or community activities.

For further information or to pick-up an application form for the President's Entrance Award program and other Entrance Awards available to BCIT students, contact the BCIT Financial Aid and Awards office at (604) 432-8555.

Figurin' out BCIT: What are our '93 graduates doing...

(surveyed in '94 and again in '96)



Nearly 80 per cent of these graduates would choose their same program again.

Source: Institutional Research and Planning www.bcit.bc.ca/~irp

Student Open House '98 Coordinator

The Student Open House Coordinator is a very high profile position both at BCIT and with the outside community. We are seeking an individual who possesses the following qualities:

- ❖ Excellent leadership abilities, strong organizational skills
- ❖ Good public relations skills, a team player
- ❖ The ability to make presentations, strong, confident and motivational
- ❖ The ability to deal with industry, business and government

The successful candidate for this position must be a BCIT student in full-time attendance

and in good standing. The Student Coordinator will be required to coordinate activities related to Open House during the summer. This position will receive an honorarium for work done throughout the 97/98 school year.

All candidates should submit their resumes and a covering letter by **March 3, 1997** to:

Student Open House Coordinator Competition
BCIT Student Association, General Office
Student Association
Campus Centre
3700 Willingdon Avenue
Burnaby, BC V5G 3H2

If you require further information please contact Special Events at 432-8398.

SPECIAL EDITION SCHOOL OF TRADES TRAINING

Message from the (acting) dean

It is a critical time for education in British Columbia, BCIT and the School of Trades Training, but with an enthusiastic team approach and by collaborating with industry we have had some pretty positive results. In particular we have experienced growth in key areas, including industry services and partnerships, Women in Trades, First Nations training and Part-time Studies.

Industry Services

Our focus is on long-term partnerships, which begin by looking at the needs of a business' corporate headquarters and then responding to those needs by putting together a team to meet their corporate objectives. This results in a three-way partnership that includes the instructional department, the corporate client and often a third party or access to institute support services.

One of the best examples of the work we are doing in this area is with AVCORP — a local manufacturer of aircraft components. We worked with them to develop training for a brand new manufacturing process, and this partnership

has become a model in discussions with other companies. The project resulted in a 100 per cent placement rate for successful grads in an international company. And AVCORP was not the only company hiring the graduates, other aircraft companies also wanted to interview our students.

Our focus is on long-term partnerships...

The Fast Ferries project is another success story that represents a partnership between the Consortium of Shipbuilders, BC Ferries, the government of BC and the School of Trades Training. To date we have trained in excess of 200 technicians. Vancouver Shipyards have asked us to maintain our presence on-site and be available for further training as this project evolves.

Women in Trades

Generally, in the college system the Women in Trades programs have always been the result of special project funding, but with our ongoing success in this area

we are striving to have this become part of our scheduled training activity. This has become increasingly possible now that there are more women working in industry. For example we now have a female instructor in marine engineering.

First Nations

The School of Trades has worked with the First Nations Office and Band Leaders to provide training opportunities for First Nations people. For example the Fresh Start for First Nations program provides an opportunity to upgrade basic entry-skills to enable First Nations students to meet trade program prerequisites. Fresh Start is an applied academic program.

Students who are successful in completing the Fresh Start program have a good track record for successfully completing an entry-level trades program.

Part-time Studies

Our Part-time Studies offerings change as industry demands change, which is greatly affected as industry becomes increasingly regulated.

Therefore providing new training programs is challenging as we must be ahead of the marketplace —

our instructors must be ready to provide the training as the regulations change. One way to keep on top of this is industry alliances that make us part of the change process. Not only are we doing the training, but we are helping to develop the training program. In the area of refrigerants B.C. is showing leadership in North America with regards to environmental regulations. As the regulations in ozone-depleting substances change, we will continue to participate in the development of expertise and training programs.

Now that we're coming to the end of the first-year of the School Operational Plan, we have proved that meeting our responsibilities to do more with less is doable. The modest



Ron Evans

growth and diversification we have experienced will align us better to support the direction of the institute's strategic plan.

Our next challenge is to expand access through distance education and the Net. We are presently working on our website. For more information drop by for a visit at <http://www.bcit.bc.ca/~sott/>

— from Ron Evans

Fast Ferries update

Last spring we reported on BCIT Steel Fabrication instructor Kevin Neustaedter and his training experience on aluminum catamaran ferries. Neustaedter was originally selected by B.C. Ferries as one of seven representatives to learn the training techniques already in place in Tasmania in order to set up a similar program in B.C.

In the past nine months the B.C. program is up and running and the primary training focus is employees of Catamaran Ferries International (CFI) by BCIT instructors. Neustaedter is still doing some of the training at the centre in the shipyard, in addition to six other BCIT instructors. This takes some of the pressure off of Neustaedter, who has added responsibilities since his recent promotion to chief instructor.

"BCIT instructors are overseeing the day-to-day running of the training, essentially maintaining a strong presence for the institute's School of Trades on-site," he explains. And according to Neustaedter once the CFI training is complete, BCIT will have use of the training facility for their own programs, including use of equipment and utilities. "Ultimately I'd like to see this as a satellite campus," he adds.

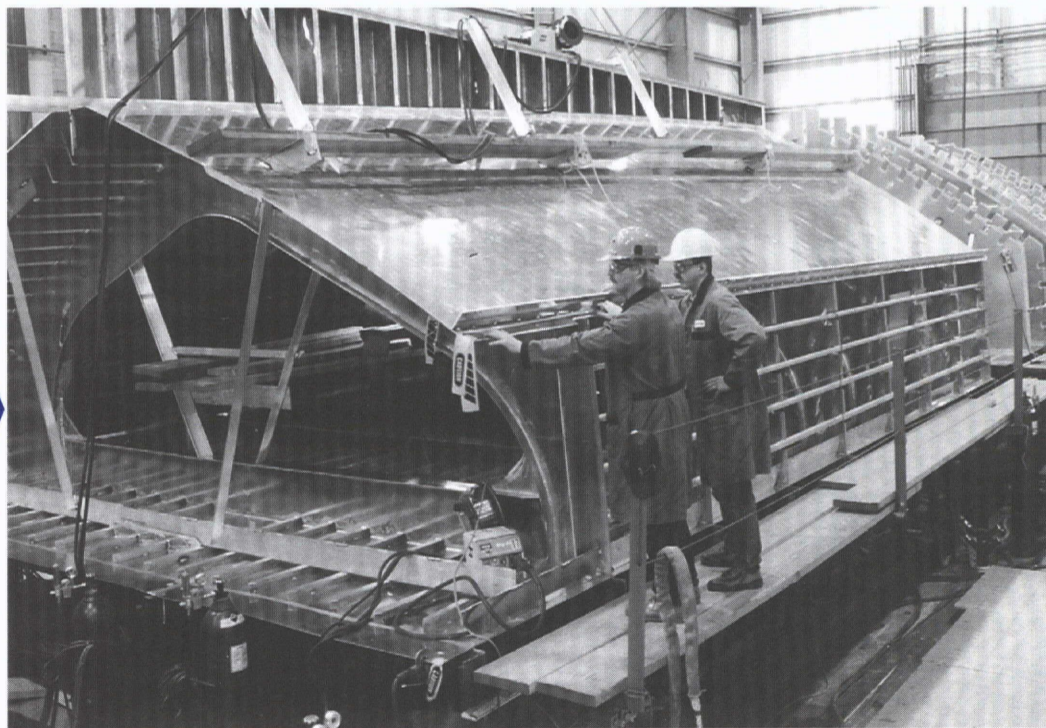
The market for this kind of on-site training may be increased significantly if Neustaedter's bid for the resurrection of a shipwright apprenticeship program is approved. "There is a need for trained fabrication welders in the shipwright field and we can provide the necessary training," he says.

Neustaedter is looking beyond the local markets to increase usage of the training facility. He mentions China as a possible market following a similar model to what he experienced in Tasmania: training the trainer, who then returns home to train more trainers and industry workers.

The training centre, located at the Vancouver Shipyard dry-dock, was complete on April 29, 1996 and by Feb. 21, 1997, 200 students will have completed the training program. According to Neustaedter each class averages 12 members and students have primarily come from the shipyard or other shops.

— from Sheila Rees

BCIT instructors Kevin Neustaedter (L) and Peter Thomas (R) working on one of the pontoon sections of the ferry.



Welding inside the Fast Ferry



Students at Maple Ridge with the drag racing car they built and race on the weekends.

Shortening the commute

Agreements between BCIT and high schools throughout the Lower Mainland may mean shorter commutes for some Entry Level Trades Training (ELTT) students.

"We've already run the ELTT program in partnership with Maple Ridge Senior Secondary School for the past two years, and the students have been pretty happy with it," says Terry Fletcher, associate dean of Transportation Training in the School of Trades Training. Previously, ELTT was only offered at the Burnaby campus.

The agreement enables BCIT to make use of shop space that is currently underutilized in the high schools, to expand ELTT program offerings. This allows students commuting from outlying areas to reduce their

travel time significantly. In return for use of the space, some high school students are accepted into the ELTT program while completing Grade 12.

"Currently, four of the 16 students in the program at Maple Ridge are high school students, whose tuition fees are subsidized by the school district," Fletcher explains. "Everyone wins - the school expands its trades offerings, the high school students can graduate with an ELTT certificate along with their high school diploma, and the regular students have greater convenience in taking their program."

Another benefit is the exposure the younger students have to classmates with different attitudes, backgrounds and life

experience. Fletcher notes that nearly every one of the high school students showed a marked improvement in their general attitude and work ethic after a few months in the program.

"They seem to work well together. One of the big projects has been building a drag racing car, which a group of them takes out to race on the weekends," he says.

The positive impact of the Maple Ridge program has led to demand for similar programs with New Westminster Senior Secondary and Sir Charles Tupper High School in east Vancouver. Negotiations are currently under way with the municipality of Delta as well.

— from Karen McDonald

Interactive distance education

Have you ever tried to explain a quadratic equation to someone over the phone? Or felt the frustration of trying to make sense of a calculus problem with a tutor who couldn't show you what they were doing?

According to Garry White, program head of the Power Engineering program, that's just the type of obstacle distance education students face when they're getting assistance from a telephone tutor.

"They're happy to have the tutorial assistance, but it's really difficult to explain the concepts and procedures of working through a formula when the other person can't see what you're doing," he explains.

To combat that problem, the department is pilot testing a new multimedia computer with video capability. It allows students to dial in to a tutor, who uses a miniature video camera on his desk to zoom in on a drawing or formula. As he points to particular parts of the problem, the image is transmitted back to the student, who can follow

along with their own copy. The system also has voice capability, so the explanation can be heard clearly as well.

"It allows us to deal with questions in real time, immediately and effectively," White says.

The new system and software cost approximately \$7,000 - a relatively small price tag considering the potential it has for improving program delivery, White adds.

The cost to the student is minimal as well - if they have at least a 486 processor, all they need to buy is the software, for approximately \$65.

"They can buy a video camera and other extras to make things even more interactive, but it's not necessary to take advantage of the multimedia tutoring service," White says.

Up until now students have routinely come to the BCIT campus for about a month prior to their provincial certification exam to study and work with instructors. This can be a tremendous cost, in terms of

time away from work, travel costs, accommodation and time away from their families. White hopes the multimedia system will increase the number of students who feel confident and able to prepare for their exams in their own homes.

"Most people who take the program through distance education are working in a related job - many have been recently promoted or had their jobs change somewhat, which is why they're taking the training. People in that position have responsibilities and commitments that can't just be dropped to move to Burnaby for a month or two."

There are currently about 650 students taking Power Engineering through distance education from across B.C., Canada and other countries as well. White expects a strong response to the multimedia tutoring system, which will likely lead to implementation of more computer tutoring terminals.

— from Karen McDonald

BCIT delivers AST program through Dawson Creek High School

High school students in Dawson Creek can now complete the first year of BCIT's Automotive Service Technician (AST) program before they finish grade 12, thanks to a new partnership between BCIT and the Peace River South School District.

"Students enter the program while they're in grade 11," explains Terry Fletcher. "They take regular high school classes for their first semester, and automotive classes with a BCIT instructor in the second one. They do the work experience, or cooperative education, portion of the program by working in local businesses over the summer holidays."

The students follow a similar pattern while in grade 12, after which they are granted direct entry into the second-year of the AST program, which they take on the main BCIT campus in Burnaby. Those who don't choose to continue in the program receive an Entry Level Trades Training certificate.

they've shown a lot of dedication to the program."

"The School Division pays the tuition cost for each student while they're in the high school portion of the program, and the students pay the tuition once they enter the second-year in Burnaby," Fletcher says.

He adds that the arrangement is beneficial for everyone involved. The students receive their first-year of training virtually free of charge, avoid

wait lists for acceptance into the AST program and can receive their AST diploma after just one year away from home instead of two. Because of the program profile, the School Division has been able to strengthen its relationship with the trades school in the local community college, among other benefits. And BCIT receives new students who can fill empty seats in the second-year courses in AST.

"The students in the regular AST program do their work placements after their first-year. Many of them are so good at what they do, the employers offer them full-time jobs at the end of the summer, and they don't return to complete the second year of the program," Fletcher says. "While it's flattering that we're producing such qualified people after one year, it leaves us with empty seats for second-year classes - which is where the Dawson Creek students come in."

The program in Dawson Creek has been operating since September 1995, with an average of 14 students enrolled per semester. The first group of students will complete the two year process (and graduate from high school) in June 1997. It is not yet known how many will continue on to get their AST diploma, but Fletcher notes that student feedback has been extremely positive so far.

"We've only had two students drop the program so far, which is quite good," he says. "AST courses place a higher workload on the students than their regular high school curriculum - they've shown a lot of dedication to the program."

— from Karen McDonald

Students on-site at the Dawson Creek location.



SPECIAL EDITION SCHOOL OF TRADES TRAINING

Thank You

The School of Trades Training is grateful to all the donors that have assisted our training programs by donating capital equipment. The total amount of donations since April is \$255,511.43. The donors are as follows:

AirBC
3D Cycles Ltd.
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For further information on how you can donate to BCIT, please call the Development Office at (604) 432-8868.

Saw trades

Increased efficiency and productivity has become a key goal for most forestry companies, as they respond to pressures from environmentalists, government and customers to be more environmentally responsible when harvesting wood products. The apprentices who take BCIT's Saw Trades courses can play a key role in helping their employers reach those goals.

"There's pressure on sawmills and other businesses in the forestry industry to make the most of every log that comes into the mill. That depends on sharp blades and really well-maintained equipment," says Dennis Reid, Saw Trades instructor.

Saw Trades apprentices maintain the blades and related equipment to ensure the logs are cut as efficiently as possible, minimizing waste of wood in scraps or sawdust. BCIT's courses are the only ones in Canada for apprentices, and are in high demand. More than 145 students took courses from just one instructor in 1996.

"The apprentices take four levels of certification, each of them four weeks in length -

Saw Fitting 1, Saw Fitting 2, Circular Saw Filer, and Benchperson. In between the sections they go back to their employers and have to work a minimum of 1800 hours before coming in for the next level," Reid says.

BCIT's courses are the only ones in Canada for apprentices, and are in high demand.

Reid adds that industry has shown a great deal of respect for BCIT training, and that the courses are virtually at capacity through the year. In fact, the BCIT training model is currently being used to develop Saw Trades schools in China, Chile, Russia, South Africa and other countries.

Meanwhile, here in B.C., the trade is projected to grow as well, as secondary wood products manufacturing increases.

"Last year there were 1600 Saw Trades apprentices working in British Columbia. That's expected to grow to 1750 by the year 2002," Reid says.

— from Karen McDonald

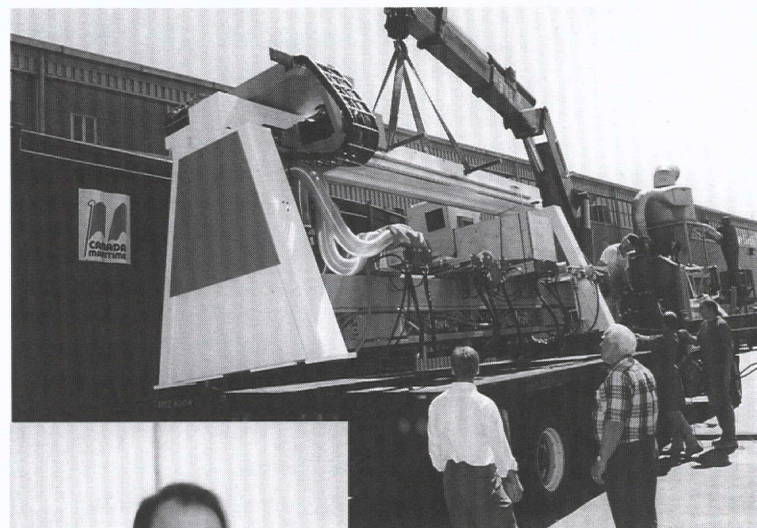
One-of-a-kind training at BCIT

With the arrival of two new machining centres in the BCIT Joinery Shop, chief instructor Dave Stimson says they're preparing themselves to supply an increasing need for industry training courses.

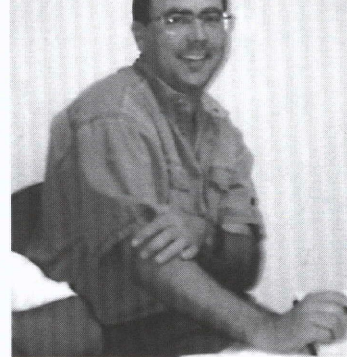
A request for equipment funding led to the purchase of a Biesse model 346 CNC machining centre, and at the same time, the B.C. Wood Specialty Group and Forest Renewal B.C. received funding that allowed them to place a Morbidelli model 504 CNC machining centre in the institute. Both machines arrived last summer and are state-of-the-art. A CNC panel saw has been ordered and should be on the shop floor by June.

"In this relatively new area for our trade, the instructional staff at BCIT hope to be the industry resource for technically sound, up-to-date information. The instructors have been training over the last number of years so that we would be able to offer students CNC/CAD/CAM courses as soon as equipment and funding became available," says Stimson.

In particular, instructor Dave Dunn worked in industry using this type of machinery. Stimson went to Pesaro, Italy, with fellow instructor Rob Sawatsky last summer to train at the supplier of the Biesse training centre. Dave Dunn and Carl Catt spent two weeks in February at the Morbidelli training centre, which is also in Pesaro. The bulk of the expense for this training was funded by the machinery manufacturers. Erwin Bublitz and Ron Hill



Biesse 346 Machining Centre being prepared for delivery into the BCIT Joinery Shop.



Dave Stimson in the classroom in Pesaro, Italy.

have both been to the Eastern U.S. for CAD/CAM software training.

Today BCIT is a factory-authorized training centre for both Biesse and Morbidelli. "We have developed a program of courses that will make it possible for people to be trained in these new technologies from the ground up," he says.

Talking about the uses of the new machining centres, Stimson says "if you can draw it and tool it, the machine can do it!" The machines can work on virtually every cabinet component, which used to be produced in the traditional manner with drill saws, routers and drilling

machines. The operator's main concern is the efficient programming of the part and then the machine takes over.

Last September BCIT began to offer the following courses in both night-school and full-time day-school formats:

- Introduction to Computers
 - Introduction to CNC CAD/CAM
 - CAD 2d (AutoCAD)
 - Machine Operator Levels 1&2
 - ABC - CAM Levels 1 & 2
 - Aspan CAD/CAM
 - Rover Cad/Cam
 - Programming in Paramedics
- from Sheila Rees

New band saw leveler improves quality of training

BCIT Saw Trades students will now have the most up-to-date training in leveling, thanks to an extremely generous donation from International Knife and Saw (IKS).

"They've donated an automatic band saw leveler for us to use in our courses, which is worth about \$60,000," says Dennis Reid, Saw Trades instructor. He adds that IKS also sent a technician up from their head offices in South Carolina to set up the system and orient BCIT staff - all free of charge.

Until receiving this donation, Reid says the apprentices in his courses could only learn manual maintenance and leveling of saw mill equipment. The new addition to their shop will expose them to more modern techniques in their trade.

"Knowing how to use this type of equipment will make them

more valuable as BCIT graduates," he explains. "As technology in the forestry and sawmill industry changes, these types of donations will enable us to keep up and keep our students current."

Reid adds there is a definite benefit to the donor as well, and encourages other companies to consider contributing equipment to the Saw Trades program.

"We have approximately 145 apprentices per year coming through our courses, from all over Canada," he says. "If their employer is looking at new equipment, they're likely to recommend the company purchase equipment they're



Saw Trades student training on the new automatic band saw leveler donated by International Knife and Saw.

already familiar with. That means potential business for IKS, or other donors."

— from Karen McDonald

SPECIAL EDITION SCHOOL OF TRADES TRAINING

Breaking the barriers

Equity update

The School of Trades Training has been working very effectively over the past several years to recruit and train women and other designated equity groups in the skilled trades. Our commitment has been to work with various community groups and organizations, including industry, unions, and employers, to provide job-ready skilled graduates.

We have accomplished this through community involvement by providing comprehensive training programs and by following up on the progress and outcomes of our initiatives. In the past year-and-a-half women's enrolment in pre-employment training at BCIT has increased from less than 3 per cent to almost 11 per cent. Seventy-five per cent of the women entering pre-employment trades training are graduates from special initiative programs.



Students in the Aluminum Vessel Construction for Women program in front with (Far Left) Anne St. Eloi, coordinator, Women in Trades/Special Initiatives and (Far Right) Marcus Davidson, operational manager, Vancouver Shipyard Co. Ltd. Nine of the ten women who completed the program are working at the shipyard where they did their training. The tenth woman is working in Richmond doing aluminum welding.

Pre-Trades Exploratory for Aboriginal women

The School of Trades Training, working with Salishan Pathways Human Resource Society, delivered a 12-week trades exploratory program for 11 First Nations women. There are ongoing discussions with Salishan Pathways on additional training activities.

Fresh Start for First Nations

The School of Trades Training delivered a Fresh Start program for First Nations people. The program started Feb. 5, 1996 and completed June 21, 1996. A new program is scheduled to start Feb. 17, 1997 and train 20 students.

Trades Discovery for Women

The School of Trades Training has delivered three of these programs, each with 20 women. It's a 20-week comprehensive program exploring 20 different trades careers and providing employability skills to obtain and successfully maintain employment. The program is designed to offer women "hands-on" career exploration, job market research and other skills necessary to bridge any barriers they may face.

Two new programs with 16 students began Feb. 10 and will be complete June 27, 1997. The women who enrol in trades programs come from varied cultural and ethnic backgrounds, as well as, different economic circumstances, such as, women in work force retraining, social assistance recipients, employment insurance clients,



Touring the Piping Shop are (L-R) Anne St. Eloi, coordinator, Women in Trades/Special Initiatives; Sue Hammel, Minister of Women's Equality; Josephine Lumberjack and Simon Blakeney, graduates of the Trades Discovery for Women program January 1996 and currently students in ELTT Piping.

recent high school or post-secondary graduates, etc.

The next Trades Discovery for Women program is scheduled to begin in September 1997.

BCIT Aluminum vessel construction for women

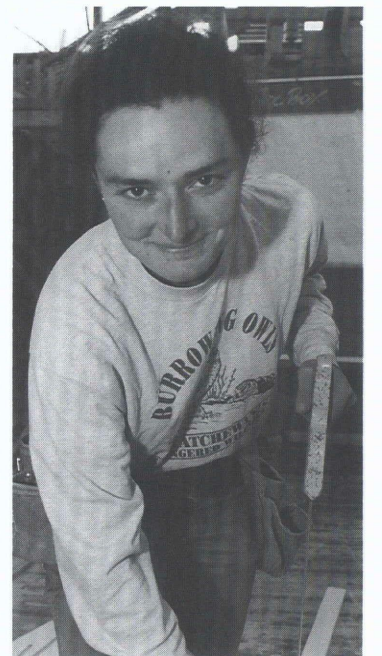
Last fall the School of Trades Training delivered a training program for aluminum vessel construction to 11 women to

work as shipfitters on the new fast ferries. This is a joint venture between BCIT and the BC Council of Marine Industries. Providing the women are successful at certifying, they will have an opportunity to access employment as union members in fast ferry construction.

— from Anne St. Eloi
Coordinator, Women in Trades/
Special Initiatives

Kathy Thom is one of the first graduates from the Trades Exploratory for Women programs. Thom went on to complete a four-year carpentry apprenticeship and now teaches in the Trades Discovery for Women program.

She also completed her welding certifications and graduated from the Aluminum Vessel Construction for Women program with the dean's award for merit. Today Thom is working full-time at the shipyard.

**Community partnerships**

The School of Trades Training is working with the community on many equity initiatives, such as:

Bladerunners: A provincial program that helps to place troubled youth into appropriate training programs, and in turn, they help our graduates into the workplace.

Salishan Pathways: We have partnerships within the First Nations community, such as Salishan Pathways Human Resources Society and the

Squamish Nation, placing students in job shadowing opportunities and accessing employment.

City of Vancouver: We have recently negotiated with CUPE 1004 and the City of Vancouver for job shadowing positions. This year our students and graduates were hired at the Board of Parks and Recreation in Vancouver.

Others: We have been with IBEW, BC Gas and BC Hydro for the past two years helping

ensure that applicants for trades job opportunities include women and other designated equity groups.

BC Council of Marine Industries: We have worked closely with BC Council of Marine Industries — both the employers and the unions — to ensure employment opportunities for women and other under-represented groups.

Templeton High School: We are presently working with Templeton High School on

Construction Technology for Women, a high school initiative to encourage more young women into trades and technologies.

B.C. Ferries Corporation, Vancouver Shipyard, Marine Boilermakers Local 1 and Marine Shipbuilders Local 506: We have partnered with these organizations in the Aluminum Vessel Construction for Women program.

Global Maritime Distress and Safety Systems

Feb. 1, 1999, the date for the Global Maritime Distress and Safety Systems (GMDSS) implementation, is barely two years away. As yet, the best indications are that fewer than 30 per cent of the mariners who will need training to the GMDSS General Operator Certificate standards, therefore qualifying to operate the communications equipment shortly to be required on ships at sea, have been trained.

The introduction of Global Maritime Distress and Safety Systems (GMDSS) into commercial shipping is now mandatory on all newly constructed vessels of more than 300 tonnes and will, as mentioned earlier, within two years become mandatory on all vessels over 300 tonnes.

As a precursor to the introduction of GMDSS the International Maritime Organization (IMO) have set out a requirement for regulations for training for GMDSS operators, usually deck officers, which have to be, or have been ratified

by most maritime nations. The Canadian Department of Industry (Recently Communication Canada) have introduced new certification in line with the IMO requirements and have asked BCIT (PMTIC) to prepare and present GMDSS courses.

Development of GMDSS-GOC training courses to an approved international standard have been independently produced by many colleges around the world. The British Columbia Institute of Technology - Pacific Marine Campus (PMTIC) in North Vancouver B.C. was approached in 1994 by Industry Canada with a request to develop a Canadian content course, almost identical to the international standards but reflecting additions and changes laid out in Canadian legislation. The course to meet these standards, and the installation of a suitable GMDSS simulator was completed last year, with the first courses offered in October 1996.

— from Robert Kitching

Celebrating industry services

In November 1996, the School of Trades Training (SOTT) held its first-ever series of events to celebrate and recognize Industry Services — an increasingly important part of the School's activities. A separate event was held for three different divisions: Construction & Metal; Industrial Mechanical; and Transportation Trades.

Industry Services in the SOTT has experienced some noteworthy successes over the past year. One of the key reasons for this has been the outstanding efforts made by SOTT instructors who have shown exceptional initiative in bringing the projects to realization.

In recognition of these achievements, awards were handed out to individuals and departments who have worked particularly hard on Industry Services, been involved in demanding projects, or used their time and expertise to develop a unique and valuable product for a client.

The SOTT hopes to make this an annual event and, by next year, to include its two other program areas, Aviation Trades and Marine, both of which have been involved in Industry Services.

During the past year, the SOTT delivered Industry Services to

more than 40 different companies. Activities included developing and delivering customized courses to writing technical documents such as training manuals and procedures.

Projects varied in length from three hours to several months and took instructors as far as Georgia, Mississippi and Japan. Other projects have been ongoing for a number of years now, such as a training partnership with GM and summer courses for UBC mechanical engineers.

The SOTT encourages this entrepreneurial and creative spirit and wishes to nurture a culture of awareness and responsiveness to the needs of industry. Industry Services continues to be a vital presence in the SOTT as the school evolves and grows with the community around it.

For further information on IS in the School of Trades Training, please contact Laurel Stroppa at (604) 432-8685

If you're on the Net, drop by our homepage at <http://www.bcit.bc.ca/~sott/induserv> where we will begin to feature stories on different Industry Services projects in about a month.

— from Laurel Stroppa



Matthias Schulte in the Joinery Shop with BCIT instructors Don Shortt and Mike Bubersky.

Putting the "journey" in journeyman

Walking around campus in traditional German journeyman garb can provoke a few stares and second looks, but Matthias Schulte hardly notices. After all he has been travelling around Europe and North America for a year-and-a half as a furniture maker/travelling craftsman.

Originally from Dresden, Germany, Schulte recently stopped at BCIT where he toured the Joinery Shop, met some of the instructors and students and had his travel journal stamped by the Office of the Registrar. He is interested in meeting timber framers and furniture makers.

This was not the first time that BCIT has been a stop "on the journey" for travelling craftsmen. Last year two Carpentry journeymen, members of the Society of "Free Vogtlander of Germany" gave forth-year Carpenter apprentices a new meaning for the term journeyman.

Changing the pace

What began as a homegrown pilot project in Trades Training in 1990 has given instructors new options and expertise in a model of delivering examina. The CML department uses the Learning Management System (LMS) software, a computerized test bank system that allows students to learn at their own pace and test their progress along the way.

Students can learn a module, visit the test centre, call up the test on the computer system and perform self-assessments to analyze their strengths and weaknesses before actually being tested for marks. The computer will mark the exam and

Who are these journeying journeymen?

The Society of "Free Vogtlander of Germany" is an old, tradition-bound journeyman brotherhood that includes construction and finishing carpenters, bricklayers, roofers and stone masons. It supports the union movement and is based on democratic principles.

The main aims are three-fold: to enhance knowledge of one's trade; to maintain the tradition of apprentice travel; and to further the understanding between people and help create a truly international spirit.

Journeys last for two years and a day. The first year is spent within Germany, where the young journeyman is accompanied by an older comrad, who instructs him in the various traditions of their trade. The travelers are not permitted to come closer than 50 km to their home village. The brotherhood expects their members to gain general as well as trades-based knowledge. Throughout the

travels the traveler carries a traditional staff, black corduroy clothing and an earring in the left ear. Once a journeyman takes to the road, he or she becomes a lifetime member of the Society of Free Vogtlander.

Luggage consists of the *Charlottenburger*, a neat bundle that contains the work clothes, washing materials and tools. Accommodation is usually found at inns and sometimes with sympathetic people in the village. If necessary, the open sky provides cover for the night. Once a place of employment is found the journeyman remains there for six to eight weeks before resuming his wanderings. Throughout their travels they receive support from members of other trades, various institutions and trade masters. As a qualified journeyman-wanderer, the young tradesman is automatically covered by all the benefits enjoyed by any other workers in Germany.

—from *Gesellschaft Freier Vogtlander Deutschlands*, translated by Bert H. Schendel

reevaluate the answers, and students have continuous access to their testing history.

"We've certainly come a long way," says Alison Dewhurst, LMS System coordinator, who administrates the tests for 25 complete programs in Trades Training. "In 1980 the whole testing system was paper-based, hand-marked and hand-recorded." These days, there are four centres on campus where students can write the "challenge" exams.

The system allows students to achieve the mastery level they want in the theory portion before moving on to the next level. Students quiz themselves

to assess their knowledge base, access the instructor for applied practical skills and then test for marks.

"Computers have eliminated the redundancy so that we can spend our time taking care of the student's needs instead of doing paperwork," she says.

System developers zeroed in on a trend in learning and incorporated it into the program. "We always want feedback and assessment," says Dewhurst. "If you don't know where you are how can you know where you are going?"

— from Crystal Sawyer

Events to come

Wednesday, Feb. 26

- Richard Mimick, dean of business, Royal Roads University, will talk to students about how to turn their college certificate or BCIT diploma into a Bachelor of Commerce degree. From 1230 to 1430 in the BC Tel Theatre.
- Lunch and Learn: People Skills 101. Second session Wednesday, March 5. Sessions cover the foundational natural laws of human relations, interpersonal communications and relationship management. Presenter Greg Campeau from Campeau Learning & Development Inc. From 1200 - 1300 in SW1 Room 1015.

Thursday, February 27

- BCIT Bookstore proudly presents nationally known author Evelyn Jacks, who will speak on "201 Easy Ways to Reduce your Personal Taxes." From 1230 to 1330 in the BC Tel Theatre. Limited seating, tickets available at the BCIT Bookstore.

Saturday, March 1

- Air Cadet Day at Sea Island campus hangar

Wednesday, March 5

- EDCO Meeting — the first meeting of the newly elected members. From 1130 to 1430 in NW1 boardroom. EDCO meetings are open to all members of the BCIT community.

Wednesday, March 19

- President's Seminar Series: From Zero to Hero — How BCIT created a Call Centre of Excellence in partnership with BC Tel. From 1200 to 1300 in SW5 1845.

Friday, March 28

- Good Friday Statutory Holiday — Institute Closed

Monday, March 31

- Easter Monday Statutory Holiday — Institute Closed

Friday, April 4

- Peter Urs Bender, noted as one of North America's most dynamic speakers, presents a seminar on *Secrets of Power Presentations*. This event, which is open to all staff and students is presented by BCIT's Sunrise Toastmaster's Club at 1200. Location TBA.

PROFILE

Going against the backflow

As director of the American Backflow Prevention Association, piping instructor Bill Evans is doing his part to protect our drinking water.

"Backflow is the reversal of water flow that occurs under certain circumstances that can cause contaminants to get into the drinking water," explains Evans. The backflow prevention system is based on a special valve that protects the water from being contaminated.

For example, if there were a fire at the Brentwood Mall, water pressure required to extinguish the fire could actually suck water from BCIT's water supply. If there happened to be bucket full of chemicals or contaminated water on campus with a hose in it, that excessive suction could pull those chemicals right through the hose and into the drinking water system.

"There have been many cases where human blood and other pollutants have been found in our drinking water," says Evans.

Evans largely focuses on elevating public awareness to the problem as a protective device. BCIT is the second largest teacher of backflow prevention in North America.

"After students are certified at BCIT they can test backflow prevention valves to ensure they are working properly." While the Vancouver job market does not offer a lot of jobs in this field, Evans says there is a high demand for these skills in other areas like Los Angeles.

One of the key training tools offered by BCIT is a computerized testing program developed by the Institute for troubleshooting. "It is a fully interactive program that portrays an animated version of

what is actually occurring inside the valves and how they will react under different conditions," Evans explains.

The software gives students the advantage of learning far more in the condensed course, which is delivered in only 30 hours. "It has really opened new doors in the learning process," he says.

BCIT, in conjunction with the American Backflow Prevention Association and the B.C. Water and Waste Association, is currently



Bill Evans

planning an international conference for industry leaders in Vancouver September 4-6.

—from Crystal Sawyer

Buddy program hits the slopes

If you are a skier who sometimes skies alone for lack of a partner, then read on. It's an opportunity to get together with other staff members who enjoy hitting the slopes.

Mike Thomas of the Automotive department is offering to operate a staff skiing list. Just register your name and skiing level (beginner, intermediate,

advanced intermediate or expert). Indicate whether you are interested in skiing locally or are interested in traveling further afield.

Thomas will operate and administer the list. Any staff finding themselves without a ski partner for the weekend can phone 8240 or profs mthomas for an up-to-date list.



Air Cadet Day at Sea Island

The Sea Island campus is hosting an Air Cadet Open House on Saturday, March 1 from 1000 to 1400 in the Aviation hangar.

The program will include hands-on demonstrations exploring aviation career opportunities in aircraft structures, avionics, aircraft turbines and aircraft maintenance.

Come and witness the firing up of an aircraft, have your photo taken inside a World War II Harvard and watch the air cadet parade.

Classy finds

For Rent: Small 1 brm cottage in Surrey (near 64th & Scott); suitable for single person; quiet, on private property with trees. Asking \$500/mo. Call Susan at 432-8868.

For Rent: Whistler Creek: Tamarisk 1 br. Condo sleeps 4, fully equipped with fireplace. Seasonal and excellent mid-week rates. Call 222-1022.

For Rent: Riverfront two-bdrm, two-and-a-half bth condo to share with prof. Non-smoker. Prefer neat, active person with sense of humor. Refs. Required. Located in Fraserlands near tennis courts and parks. Avail mid to end of Feb. Rent \$500/mo., includes parking and utilities. Call Val at 451-7148 for more info.

Wanted: Place in Phoenix area for one or two weeks, probably March. Call Sandie at 8848.

For Sale: remodeled one bdrm condo for sale by owner. Large wrap around balcony on quiet NE corner with view. Includes kitchen pantry, mirrored dining room wall and excellent rec. facilities. Near Lougheed Mall. Asking \$106,900. Call 421-3550.

For Sale: 1994 Explorer tent trailer, low usage, well maintained, propane fridge and furnace, sleeps 6, call Tom at 451-6756.

For Sale: Lawnmower - Snapper 5 hp., commercial quality, s-speed, 3 bushel vac/pac, asking \$150. Washer/Dryer set - Inglis 1991 white, great condition, asking \$250; Microwave - Panasonic, asking \$50; Pine Table - Ikea, asking \$50; File Cabinet - 4 drawer, asking \$40; misc. garden tools. Call 420-4704.

For Sale: Kenmore washer/dryer, good condition. Asking

\$225/pair. Maytag dishwasher, like new, asking \$200. Call 942-4454.

For Sale: Simply Accounting software program, version 4.0 for Windows. Never used. Asking \$40 obo. Call Katherine at 8917 or 255-7944.

For Sale: '91 Pontiac Sunbird — good condition 86000 km. Asking \$4500. Call Ann at 8743 or home at 941-5571.

Roommate Wanted: To share two-bedroom townhouse unit with owner. 1350 square feet, located on Ash St., in New Westminster. Includes: underground parking, fenced back yard, utilities, shared kitchen, laundry, family room. Prefer n/s, no pets and vegetarian. Available March 15. Asking \$550/month. Furnishings available if needed. Call Shelley at 527-5378 (day) 540-2441 (evenings).

Please Note: On page two of the Feb. 4 issue of Update we printed that Valerie Jenkinson's company does telemarketing, when in fact they conduct telesurveying as part of their quality research.

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