



# SHOP TALK

## A Trades Training Opportunities Newsletter from BCIT

May, 1988

### From the Editor's Desk:

On May 8, 1989 high school counsellors, program co-ordinators, teachers, and representatives from Employment and Immigration Canada, gathered at BCIT for **Update '89**. A new annual event, Update '89 is designed to keep these groups using BCIT services updated on changes and training opportunities at BCIT.

During the session sponsored by BCIT's School of Trades Training participants heard from the Dean and Associate Deans about the wide variety of trades training opportunities available at BCIT and were given a tour of the trade areas. Here they met with Chief Instructors and had an opportunity to see trades students in action.

This idea of communicating directly with those people who work with potential BCIT students parallels our plans for communicating with teachers involved in Career Preparation programs.

After spending the first year working the bugs out of the administrative process, the focus is shifting. Our plans now are to promote an instructor to instructor dialogue. We learned during the first year that having BCIT trades instructors work directly with Career Preparation teachers better serves the needs of the students.

As a first step in promoting increased communication we are including the names and phone numbers of Chief

Instructors for each of the trade areas which have entry level programs. In addition, each of the chiefs will receive a list of the schools and instructors delivering related Career Preparation programs. If you require information, would like to visit our shops, or have questions about course content, you now have a direct line to a Chief Instructor.

SCHOOL OF TRADES TRAINING 432-8277  
Acting Dean — Len McNeely 432-8759

AVIATION TRADES  
Associate Dean — Bill Foyle 278-4831  
Aviation Trades  
Peter Mills 278-4831  
Charles Roberts 278-4831  
Avionics  
Pat Muldoon 278-4831

ELECTRICAL/ELECTRONICS  
Associate Dean — Dennis Duffey 432-8222  
Appliance Servicing  
Gary Arneja 434-5734 (5052)  
Drafting  
Brock Hilliard 434-5734 (5058)  
Electrical  
Mike Wanstall 434-5734 (5018)  
Electronics  
Pat Muldoon 278-4831  
Power Engineering  
Joe Brown 432-8558

MECHANICAL  
Associate Dean — Ron Evans 432-8202  
Machinist Group  
Ted Marchant 432-8214  
Motorcycle/Marine  
Ken Nichol 432-8460  
Automotive  
Terry Fletcher 432-8240  
Heavy Equipment Group  
Don Eklof 432-8241  
Industrial Mechanical  
Todd Davies 434-5734 (5038)  
Body Paint & Trim  
Dave Lick 434-5734 (5035)



Visitors to BCIT tour motorcycle mechanic shop and examine up-to-date training aids.

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## METAL & CONSTRUCTION

Associate Dean — Mike Cannell	432-8264
Benchwork/Joinery	
Erwin Bublitz	434-5734 (5025)
Carpentry	
John Eliassen	434-5734 (5024)
Piping Trades	
John Masse	432-8420
Sheet Metal	
Gordon Bradbury	432-8242
Steel Trades	
Nino Romanin	434-5734 (5004)
Welding	
Larry Cox	434-5734 (5003)

## Women in Trades Program

BCIT recently received a grant from the Women's Secretariat of the Ministry of Advanced Education and Job Training to facilitate the recruitment, training, and placement of women in trades careers. Although women have always been encouraged to attend BCIT trades programs, they have never represented a significant proportion of the students taking this kind of training. In addition, resistance to the employment of women is greater in some trades than others making placement of new graduates in entry level positions a challenge.

Considering that recruitment and placement are seen as major barriers to the successful entry of women into the trades, these two activities will provide a focus for the BCIT project. Our primary objective is to develop strategies that can be easily incorporated into the ongoing operations of BCIT's trades programs so that the needs of women are met, even after the end of the funding period.

We recognize, of course, that any project concerned with the role of women in non-traditional careers is faced with an uphill battle in opposition to generations of social pressure. These pressures placed certain expectations on women regarding their role in society. The statement that women cannot participate in certain careers because they are women not only has little basis in fact but increasingly comes into conflict with human rights and employment equity legislation.

Treating their daughters differently than their sons is something many fathers would admit to. This mind set is nurtured as little girls enter the educational system and mature into young women. As a former teacher of Industrial Education I am aware of how under-

represented young women are in these kinds of high school programs. I am also aware of research which highlights a general reluctance of young women to specialize in math and sciences in high school. This, together with research indicating a correlation between math skills and persistence in an entry level trades program, seems to indicate that women come to trades programs already at a disadvantage compared to their male classmates.

It is obvious that one or many projects will not overcome the years of tradition which have kept women out of trades. However, it is hoped that the present attempt may at least be useful in lowering some of the barriers presently encountered by women seeking a career in the trades.

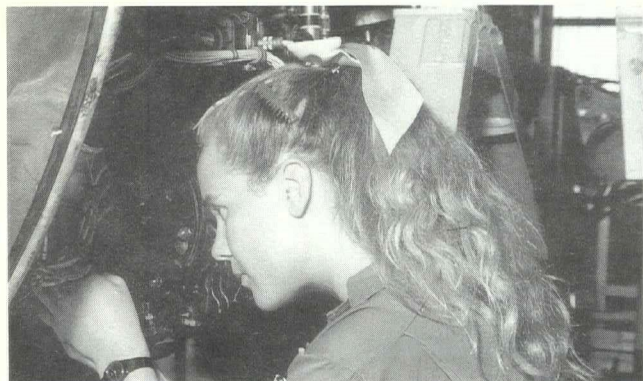


*Sea Island achieved another first last year with the graduation of two sisters from the Aircraft Maintenance Engineer program. Louise Hashimoto, left, graduated from the program last April and is currently serving her apprenticeship at Heli Logistics in Langley. Murielle Cassidy, her younger sister, graduated in December after joining the program straight from high school. Instructor John Edwards says the small number of women who take the course usually do very well and their presence adds something very positive to the class. "Everyone seems to try harder," he says. "Unfortunately women have not been encouraged to work in mechanical fields, but we find that if they have the basic interest and a bit of mechanical background they do really well."*

*Edwards says he has seen some really outstanding women pass through the AME program. One of them, in fact, became the first Sea Island student to receive the Lt. Governors' medal five years ago.*

## Trades Students Develop Training Aids for ICBC

On February 21, 1989 Bob Wilson of the Insurance Corporation of British Columbia was presented with three cut-away teaching models to be used by ICBC in the training of their adjusters. The cutaways were prepared by students from Commercial Transport, Machinist Trade and Steel Fabrication. Commercial Transport students worked



***Recruitment and placement seem to be the major barriers to womens' participation in trades careers.***



with transmission, differential and brake assembly units provided by ICBC to decide where the cuts should be made. Following disassembly, the components were sent to the Machine Shop for precision cutting by another group of students. Meanwhile, Steel Fabricating students built mobile stands for displaying the working models. In the final step, the models were returned to the Heavy Duty Shop for painting and reassembly.

This is the kind of cooperative project that benefits everyone involved. In return for donating mechanical components from wrecked vehicles for students to work on, ICBC receives valuable teaching aids. BCIT students get an opportunity to practice what they have learned on a project that simulates what they will be expected to do on the job. And finally, such projects enable BCIT to demonstrate ways it can support B.C. business and industry.



**ICBC rep Bob Wilson and students from Commercial Transport pose with cutaway that will be used by ICBC to train their inspectors. From left to right: Paul Pecor, Level 2, Bob Wilson, ICBC, Shailendra Autar, ELTT, Gary Fran, ELTT, George Brunowski, Level 2, Vern Laquerre, ELTT.**

## Placement Survey of ELTT Graduates Completed

A follow-up study was completed early in 1989 to determine how successful ELTT graduates were in obtaining employment in their chosen trade. The survey included all students who graduated between September 1, 1987 and August 31, 1988.

Using a combination of mailed questionnaires and telephone follow-ups a response rate of 67% was obtained. The results proved very encouraging, with between 80 and 100 percent of the Boilermaking, Ironworking, Inboard/Outboard Mechanic, Benchwork and Joinery, and Sheet Metal graduates finding jobs related to their training. Following close behind these students were Carpentry, Electrical, Machinist, Motorcycle Mechanic and Steel Fabrication graduates, with placement rates of between 70 and 80 percent. In the remaining programs, Automotive Mechanic, Commercial Transport, Diesel Engine, Heavy Duty Mechanic, and Millwright graduates found employment related to their training in 50 to 70 percent of the cases. In the cases where graduates were not working in an area related to their training they indicated that they had not yet found employment, were taking additional training and not looking for work, or had

taken employment in a job unrelated to their training at BCIT.

In an attempt to provide a more focused approach to graduate placement, the School of Trades Training will be taking on the responsibility of operating the Employment Action Center. The Employment Action Center, presently operated by the BCIT Student Association, is designed to bring together trades students looking for work and employers looking for entry level workers and apprentices. This service is presently provided for graduates of BCIT's two year technology programs by the Canada Employment Center on campus.

Placement of ELTT graduates has been on the increase in the last few years. This increase in employment opportunities for graduates parallels the improvement in B.C.'s economy. Now is an excellent time for new graduates to be looking for apprenticeships. In general, employment opportunities are plentiful and for the student graduating from high school the chances of going straight into the labour force are good. However, from past experience we know the economy cannot be depended upon to expand indefinitely and the decision to "take a job" as opposed to "starting a career" is something that should be thoroughly discussed with students leaving high school. The short-term gains of entering the work force immediately after graduation are usually surpassed, in the long term, for those who get additional training. The impact of technology on work and workers increases the need for specific skills. Even though employment opportunities are good now the "last hired and first fired" syndrome still lurks, out of sight, waiting for the economy to begin to backslide.

## Autobody Collision Repair Returns to BCIT

When BCIT closed its Maple Ridge campus the Autobody and Auto Painting and Refinishing programs were suspended. The reintroduction of this kind of training is presently on the drawing-board and it is anticipated that the programs will restart in the Fall of 1989.

Although still in the planning stages, entry level training in these two trades will incorporate a core of generic skills, branching into either an autobody or auto painting and refinishing option. It is hoped that these will be co-op programs, with the students going into industry for an extended period of time as part of their training. Although this will extend the total length of the programs to around 18 months, the extra time will be more than compensated for by the increased potential for student placement which is a natural consequence of co-op programs. Although BCIT is not yet taking applications for the auto collision repair courses, interested students should contact Student Services (434-3304) or the School of Trades Training (432-8277) in July for further information.

## The House that Jack Built

Consider the problem: The average house is 400 square feet. Wood, as a building product is virtually nonexistent. There is a limited pool of skilled construction workers. The environment includes such variables as scorching heat and typhoons. You are working with a Third World country. You have an urban renewal project calling for the construction of 450,000 housing units. It sounds like a

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planner's nightmare, but this list of seeming disadvantages has turned into an opportunity with excellent potential for a B.C. company. Acumen Industries Inc. has designed a dwelling that not only meets these demands, but has also caught the eye of environmental planners in the Islands of East Africa, the Peoples' Republic of China, and India.

A sample of Acumen Industries' Third World house now stands across the street from the Canadian Home Builder's Association of British Columbia's R-2000 building on the BCIT campus. The structure consists of pre-fabricated insulated panels composed of light-weight concrete and polystyrene. The inside and outside walls are coated with an acrylic based, non-toxic, weather and fire retardant plaster that retains a certain amount of flexibility but is extremely hard and porous. While the demonstration house at BCIT has a traditional Canadian wood and asphalt shingle roof, in Third World applications this would be replaced with the concrete and polystyrene panels.

BCIT got involved when Acumen Industries was looking for a site to build a demonstration house which could be used to show foreign visitors. In return BCIT was given permission to use the structure for testing purposes. In addition, the house stands as an example of how high tech construction materials and techniques can be used to provide cost-effective solutions for the housing demands in Third World countries.



**Jack Scarfe, Associate Dean Building Design and Construction Trades (retired) stands in front of Acumen Industries' Third World house located at BCIT.**

### **Program Highlight: Diesel Engine Mechanic**

Attention to detail and quality workmanship are characteristics required by students choosing to go into Diesel Engine Mechanics at BCIT. In general, people seem to believe that because diesel engines are commonly found in heavy equipment that they lack the technical sophistication of what is under the hood of the modern automobile. This is far from the truth. With the application of computer technology in fuel management systems and computerized automatic shut down systems the diesel mechanic must now understand computers and electronics in addition to the other precision skills required.

The Diesel Engine Mechanics program at BCIT is designed to give graduates a good grounding in the basics of current engine maintenance and repair. The

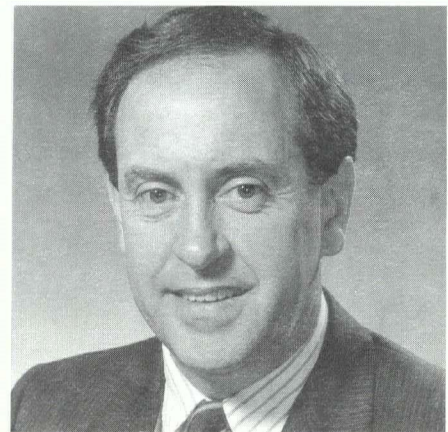


**ELTT students examine the Detroit Diesel Electronic Control (DDEC) components. The price tag on this high tech fuel management system runs at around \$11,000.**

course content parallels the engine rebuilding process as students do a "ground up" rebuild of a CAT, General Motors, or Cummins diesel. Considering the cost of the rebuild can range up to \$30,000 and that a forgotten cotter pin or lock washer can result in downtime costs of thousands of dollars per day for the user, the need for precision is obvious.

Graduates of BCIT's program work in a variety of settings. Whether working for one of the major manufacturers, a rebuilding specialty shop, or in a marine setting, the training provided in the Diesel Engine program provides the skills required for entry level employment.

Program Length:	42 weeks
Next Class:	September 5, 1989
Tuition:	\$1086.00
Prerequisites:	Grade 12 completion with Math 10 or Trades Math 11 and English 12
OR	Successful completion of an entrance test in math and reading skills.



**BCIT's new president, John Watson. Mr. Watson was formerly assistant deputy minister, Universities, Colleges and Institutes with the provincial government. Prior to that he was vice president, Finance Administration at Okanagan College. Both these roles have provided him with a unique perspective and understanding of the post secondary system.**