UBC REPORTS

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UBC helps economy

New industrial companies formed as a result of UBC technology last year had total sales of about $72 million and employed more than 1,200 people.

The companies were created in two ways. New technology developed at UBC was transferred into the private sector through new companies. Or the companies were initiated by entrepreneurial UBC graduates who applied their general knowledge to provide new products and services.

This information comes from a preliminary survey by Dr. James W. Murray, UBC's director of University-Industry Liaison.

"We were able to identify 23 recently formed industrial companies," Dr. Murray said. "Some of them are too new to have meaningful annual sales figures. The total sales of $72 million was registered by only 14 of them. The total employment figure of 1,266 includes all 23 companies."

Dr. Murray said UBC President Dr. David Strangway has placed a high priority on a comprehensive survey to identify UBC industrial spin off companies more completely. A questionnaire will be sent to faculty members asking for appropriate information.

"I fully expect that the additional new companies identified through the questionnaire will bring the total annual sales figure up to between $100 million to $200 million," Dr. Murray said.

"This is a significant figure when you consider that the provincial operating grant to UBC last year was about $170 million."

He said annual sales figures and the number of jobs created will increase dramatically as new companies become more established.

Moli Energy Ltd., for example, the company that will produce a revolutionary lithium molybdenum disulphide battery invented by UBC physicist Dr. Rudi Haering and his colleagues, has a potential international market worth many millions of dollars.

New family housing to be constructed

Construction of a new $9.4 million housing development for students with families is expected to get under way on a six-acre site in Acadia Camp by May 1.

UBC will call for tenders to build the 164 townhouse units that will make up the new development following approval last week by the provincial government of a request to borrow the funds to pay for the project.

Already cleared from the construction site are some 20 old army huts -- affectionately known as "the dog kennels" by their occupants -- which were brought to the campus after the Second World War to provide family accommodation for students.

The Acadia development is the second major housing initiative undertaken by the University in recent years. Completed last year on Fairview Crescent just west of the site of the new Acadia development were 187 townhouse units which have been leased to Expo 86 until November to house the staff of international pavilions at the world exposition.

The development will house 780 single students when it becomes available to the University in the fall.

UBC also received permission to borrow a total of $4.3 million to upgrade campus parking facilities and food outlets.

Government funding announced

A total of $13.1 million has been injected into the university system of the province since the provincial government announced the establishment of a Fund for Excellence in Education on Feb. 11.

The first allocation of $5.6 million to be added to the operating budgets of B.C.'s three public universities was announced on Feb. 18 by the Hon. Russ Fraser, the recently appointed Minister for Post-Secondary Education.

And on Feb. 25, Mr. Fraser announced a second allocation of $7.5 million, which he said was to be used to expand university engineering programs ($4.5 million) and for "faculty renewal"($3 million).

The minister's Feb. 25 announcement followed an earlier meeting with the presidents of the three public universities to discuss the need for increases in their base operating budgets.

He said staff in the post-secondary ministry are drawing up ground rules for the development of special initiatives by the universities related to the creation of centres of excellence.

(For details on two potential centres of excellence at UBC, see story below. Other centres will be detailed in future editions of UBC Reports.)

At the Feb. 25 news conference announcing the $7.5 million allocation, Mr. Fraser was asked what was meant by "faculty renewal."

He replied that Premier Bennett "wants to see the money going to increase the quality of service rather than to increase the salaries of those working."

Asked if the money could be used to raise salaries to stop high-quality faculty from leaving B.C. universities, he said, "It can. You're talking about merit pay."

Mr. Fraser also said he would be making an announcement in a few days on student aid.

In other developments related to university financing, a government official has been quoted as saying that when the March 26 provincial budget comes down, universities will get budget details on a three-year base.

And on the national scene, federal finance minister Michael Wilson has announced an extra $300 million in financing over the next five years for the three major bodies that finance university research.

The Hon. Russ Fraser

However, Mr. Wilson says he will continue to increase spending on research and development only if the private sector joins in the effort.

The federal research funding increases -- 6 per cent each year beginning in 1987-88 -- will be approved only if the private sector matches government contributions dollar for dollar.

Budget documents say the new twist in financing for research and development will provide a big incentive for universities and industry to work together on projects of mutual interest.

The organizations which benefit from the research and development fund increases are the Natural Sciences and Engineering Research Council, the Medical Research Council and the Social Sciences and Humanities Research Council.

World premiere

A world premiere performance of "A Cantata for Vancouver" is being presented by UBC's Museum of Anthropology and the Vancouver Cantata Singers this evening (March 6).

The performance, which takes place at 8 p.m. in the museum's Great Hall, was commissioned for Vancouver's 100th birthday with assistance from the federal government's Department of Communications and the Vancouver Centennial Commission.

The musical work is based on a speech by the Salish chief in a 1954 play by Canadian author Earle Birney, a former UBC faculty member. Well-known Indian artist Bill Reid will narrate the chief's speech at the March 6 performance.

"A Cantata for Vancouver" will also be performed on March 9 and 16 at the Arts Club Theatre on Granville Island.

A focus on UBC centres of excellence

The provincial government's recent announcement of funds to universities for "Centres of Excellence" outlined six specific areas --biotechnology, Pacific Rim studies, international business, forestry research, links with cultural agencies and computer systems -- as having priority for funding. In this issue and upcoming issues of the paper UBC Reports will feature detailed stories on UBC programs and contributions in each of these areas. UBC's involvement in Pacific Rim studies and international business are featured in this issue.

The foundations for a centre of excellence in Asia-Pacific studies have been under construction at the University of B.C. since 1949, when it began offering courses in the languages, history and culture of China and Japan.

Today, through courses and programs offered in the Faculties of Arts, Graduate Studies, Commerce and Business Administration and Law, general and advanced educational opportunities are available to students who are interested in Canada's neighbours across the Pacific Ocean.

UBC's academic program is supported by one of the most extensive North American collections of books and other material on Asia, now totalling some 300,000 volumes, some of them extremely rare and valuable.

The Asian Studies Library is heavily used by resident and visiting scholars and students as well as governments and business in need of detailed information on a wide range of Asian topics. The library is also a "depository" for a wide variety of Japanese government publications, which makes it a primary source of information on many aspects of Japanese activity.

Other aspects of UBC's Asian activities include publication of Pacific Affairs, one of the world's leading journals on the economics, government and current affairs of Pacific basin countries. The University of B.C. Press has published a number of books on various Asian topics.

Non-credit Asian-language training as well as generalized courses on Asian culture, art, philosophy and current affairs are offered every year by UBC's Centre for Continuing Education.

Here are brief descriptions of UBC's major Asian-Pacific activities.

DEPARTMENT OF ASIAN STUDIES. This department is the foundation on which a centre of excellence would be developed at UBC.

Its activities centre on language training in Japanese, Chinese, Korean, Hindi, Saskrit and Urdu. Courses are also offered in the history, literature and politics of the major nations of Asia, Southeast Asia and India.

Research within the department encompasses a wide range of activity, including the following.

Prof. John Howes is collecting material for a biography of Dr. Inazo Nitobe, the great Japanese internationalist whose name is attached to the tranquil Japanese garden on the UBC campus.

Prof. Edwin Pulleyblank, currently the acting head of Asian studies, continues the work that won him UBC's top research award, the Jacob Biely Faculty Research Prize, in 1982. He is reconstructing ancient Chinese languages with the aim of linking them to the Indo-European group, which includes English.

Dr. Michael Duke has published a book that details the changes that have taken place in Chinese literature since 1977, when the so-called "Cultural Revolution" ended with the death of Chairman Mao.

The Department of Asian Studies also offers graduate programs leading to the degrees of Master of Arts and Doctor of Philosophy in Japanese, Chinese and South Asian literature, linguistics and pre-modern history.

Other departments within the Faculty of Arts where courses and degree programs on Asia are offered are Anthropology and Sociology, Economics, Fine Arts, Geography, History, Linguistics, Music, Political Science, Philosophy, Theatre and Religious Studies.

INSTITUTE OF ASIAN RESEARCH.

Complementing the work of the Faculty of Arts departments listed above, and of other departments and faculties of the University, is the interdisciplinary research program being fostered by the Institute of Asian Research, which is part of the Faculty of Graduate Studies.

The institute has sponsored research on Chinese agricultural development, B.C. economic relations with Asia, urbanization and

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See EXCELLENCE

Sociologist completes 'Fish & Ships' study

University of B.C. sociologist Pat Marchak was convinced two years ago that British Columbia's fishing industry was going to hell in a handbasket.

Today, she's not so sure.

Her belief that the west coast industry was in a state of steady decline, characterized by depleted fish stocks and demoralization at both the worker and management levels, came at the end of a three-year sociological study of the B.C. fishing industry known as the "Fish and Ships Project."

"All the studies we undertook revealed a very unhappy situation," she said, "not a little of it the result of federal government policies over the years."

And then, she added, "out of the blue and for no known reason, the industry had a bonanza year in 1985. Many west coast fishermen did very well last year, which may mean that the salmon have more resilience than anyone expected."

Prof. Marchak is quick to add that not all B.C. fishermen shared in the profits from the unexpectedly high fish runs. "There is a substantial number of fishermen on the west coast who are so deeply in debt they can't afford to get their boats refitted in time to take advantage of a situation such as last year's. And, of course, the fish didn't appear in large numbers everywhere. As a result, some sectors of the fleet on different parts of the coast shared the bonanza."

One characteristic of the west coast industry that emerged from the study and which surprised even Prof. Marchak is its organizational diversity.

"There are some 17 different associations of vessel owners and crew in various combinations as well as a major union. The native Indians have a separate organization. There's also a large co-op organization made up of vessel owners who hire their their own processing workers, and these workers have a separate union.

"Add to this the differing needs and problems of the three types of vessels based on fish-catching gear -- purse seiners, gill netters and trollers -- and you've got a recipe for something close to total confusion."

A total of ten persons -- former and current colleagues and graduate students in the Department of Anthropology and Sociology at UBC -- were involved in the study, which will be published as a book later this year, co-edited by Prof. Marchak and departmental colleagues Drs. Neil Guppy and John McMullan.

The west coast fishing-industry study is the second major resource-sector investigation that Prof. Marchak has been involved in in the last decade. Her sociological study of the B.C. forest industry, published in book form by the UBC Press under the title Green Gold, appeared in 1983.

Both the resource-industry studies were supported by grants from Canada's Social Sciences and Humanities Research Council.

The book on the fishing industry will contain chapters by various members of the research team on:

* The history of the B.C. fishing and fish processing industries, legislation and international agreements;
* The concept of "common property resource" which has been central to federal fisheries legislation throughout the past three decades;
* The characteristics of the labor force in both the fishing and the processing plants, based on extensive interviews with workers;
* International markets for different species, with special attention to the expansion of fishing in the 1970s resulting from an increased demand for herring roe in Japan;
* The processing companies and their relationships with fishermen and shoreworkers;
* The many organizations and their struggles over the years;
* The importance of fishing for native Indian communities;
* Fishing communities, studied both through statistical data for the fishing fleet as a whole, and through intensive ethnographies of three fishing villages.

Prof. Marchak said that one of the most controversial essays, written by Prof. John McMullan, deals with the history of federal legislation and funding, especially in the late 1960s. " The federal state acted in contradictory ways, trying to decrease the numbers of fishermen and yet at the same time encouraging vessel owners to over-capitalize their boats and increase their fishing capacity."

In any research on the west coast fishery, federal government policy is going to loom large. Prof. Marchak is critical of Ottawa for failing to deal fairly with west coast fishermen.

Pat Marchak

"After the Pearse Royal Commisasion Report (1982), the ministry adopted a few recommendations but agreed to listen to input from representatives of the many interest groups before implementing a fleet rationalization program.

"The advisory committee met and worked on the problems for many months; and then it just fell apart as one minister was replaced by another and no one took the committee seriously. Most of the problems Pearse identified have yet to be tackled."

Consistent government policy is one of the basic needs of the fishing industry if it is to remain viable in the future, Prof. Marchak believes.

Here are some other problem areas that she says need to be addressed.

* The people engaged in the west coast fishing industry must have a greater share in controlling it. "I'm convinced the interested parties in the fishery are capable of co-operation, provided they're not impeded by federal policies."
* Once and for all, a decision has to be made about native Indian rights to the fishery. "I believe any settlement of the Indian claim will result in their getting a greater share of the industry. If we invested in aquaculture, e.g., fish farming, many of those affected by that decision would have an opportunity to continue working in the industry."
* The conflicts between the commercial and the sports fishery need to be resolved.
* An intra-industry advisory council should be formed, made up of representatives of the fishing, forestry, hydro and oil interests and including environmentalists as well, to discuss how conflicts can be resolved. "We have to face the facts about conflicts between these industries head on and figure out what we have to give up if we value fishing as an industry."

Arts graduates sought by employers

"When I hire a new employee, I want someone who can approach problem-solving from a broad perspective. I don't want the narrowness of the specialist ... give me a liberal arts graduate with a good foundation and I can teach them anything else they need to know."

-- J. Paul Getty, businessman and multi-millionaire.

The liberal arts degree has always been considered valuable in providing a well-rounded education. But recent statistics show that arts students also acquire the job skills and training actively sought by Canadian employers.

In a recent survey conducted by the University and College Placement Association, executives from 1,900 businesses across Canada indicated that they placed arts graduates high on the list of potential employees.

Arts graduates were perceived as having the ability to analyze and solve problems quickly, communicate skillfully and to remain flexible in a rapidly changing world. Mr. James Duncan, executive director of the University and College Placement Association, said interest in arts graduates has grown stronger as a result of cutbacks in the early eighties which forced employers to look at their staff closely and to stretch their resources among them. "Employers have found that graduates of arts and social sciences programs can transfer their skills easily to different areas within businesses. The graduates also have a 'social perspective' which makes them better able to deal with clients and colleagues."

These findings dispute predictions made in a 1978 Statistics Canada report that the demand for liberal arts graduates would decrease in a job market dominated by technology and business.

A 1984 survey of post-graduate activities of UBC students, commissioned by UBC's Student Counselling and Resources Centre, supports the new findings. The unemployment rate for arts graduates was 8.8 per cent, much lower than many of the other faculties and professional schools.

Dr. Jonathan Wisenthal, associate dean of the Faculty of Arts, says arts graduates play an important role in our present society. "We are concerned in the Faculty of Arts with qualities of judgement, with the ability to understand the human implications of problems and to analyze problems within the context of some understanding of human civilization. These skills become increasingly important as society becomes more and more technological."

He adds that liberal arts studies give students a broad choice of careers and often form the base for further professional or technical training. "A B.A. program provides students with the time and experience to discover what their strengths and weaknesses are and the maturity to make wise decisions about the career path they wish to pursue."

The Faculty of Arts, Alumni Association and the Arts Undergraduate Society recently sponsored a forum entitled "After the B.A.", which focused on career options for arts graduates. Students met graduates of humanities and social sciences programs who have achieved success in various careers. Panelists included Nathan Nemetz, Chief Justice of B.C., Donald Hudson, president of the Vancouver Stock Exchange, Diana Millen of the consulting firm D. Millen and Associates, Michael Horsey, B.C. Deputy Minister of Tourism, Dennis Foon, artistic director of Green Thumb Theatre, and Ray Williston, chairman and president of B.C. Cellulose.

The panelists shared how they apply the skills acquired through their liberal arts education to their present positions and the qualities they look for in new employees. One common sentiment they expressed was that an arts education was what you chose to make it.

"How you develop your mind through whatever specialized area of study you choose is what really affects your future," said B.C. Tourism official Michael Horsey. "Employers look at a whole set of skills. It's the well-rounded person who excels in a job interview."

Donald Hudson, president of the Vancouver Stock Exchange, said B.A. graduates are a valuable asset to a company because of their broad view of the world. "B.A. graduates have the ability to look at situations from several different perspectives and to understand different points of view. These skills can be applied to whatever business you happen to be in. Most of the specific training in any company takes place after you begin the job, so it's not that important what area you study. What is important is that students learn to be self-reliant, to develop their mind and to persevere.

"I personally enjoy working with B.A. graduates because of the broad scope of their thinking -- they realize that there's more to life than just business and they view business within the context of a larger community."

Statistics show that an increasing number of students are choosing to undertake liberal arts studies. While enrolment in several faculties declined last year, enrolment in UBC's Faculty of Arts increased 5.5 per cent.

Dr. Wisenthal says that a successful career is a by-product of a liberal arts education. "Although we are all concerned about employment for our graduates, the spirit of an arts program lies not so much in specific career training but in the desire to be educated, to enrich oneself through learning. Whatever our students may go on to do in their later lives, they will have broadened their thinking and developed the powers of their minds."

Mark Reder, president of the Arts Undergraduate Society, says he is sometimes questioned about the kind of job his studies in political science will guarantee. "I'm not sure what I'll be doing after I graduate, but I think a B.A. is more than specific studies in political science or English or Asian Studies .... In five or ten years I may have forgotten the details of Indian politics or what Rousseau said about democracy, but I will remember how to ask intelligent questions and where to look for the appropriate answers. That's what Arts is all about."

Some opinions on the B.A. . . .

"It is obvious from three surveys in the last year, in terms of the business world, the generalist education is the most preferred for business management. CEOs would rather have someone with a broad understanding of the world and a broad appreciation of a number of fields than those with a narrow perspective."

-- KYLE MITCHELL, senior partner, Dunhill Consulting Group.

"In a university education, even if a degree doesn't provide you with a specific discipline, it teaches you how to think. In this day and age, we are in an era of generalists. A B.A. provides a better general background than other more specific disciplines."

-- BRUCE PEPPER, president, Vancouver Board of Trade/World Trade Centre.

"Areas where the B.A. is most in demand are sales, marketing and administration. We are starting to find that our clients are becoming more particular in their requirements. If two candidates are otherwise equal, the one with the B.A. degree would have the edge."

-- BILL SCHULZ, partner and co-founder, Holloway, Schulz & Partners, Inc., Employment Recruiters.

And then again . . .

"The B.A. is the equivalent of a small albatross around your neck. Its devastating liability increases as one approaches the Ph.D. A Ph.D. is a large albatross."

-- FRANK OGDEN, futurist and president, 21st Century Media Communications, Ltd.

Resolutions approved

The Board of Governors has approved new resolutions pertaining to signing authorizations at UBC.

The new resolutions affect bank borrowing arrangements, payment of money, debenture arrangements, internally managed investments, donations to the University, the UBC pension plan and insured benefit plans and contracts and agreements related to general purposes, research, purchases, food services, the library and the University bookstore.

The new resolutions supersede and cancel any previous signing resolutions passed by the Board in these categories. For more information, contact your dean or department head.

UBC CALENDAR

Calendar Deadlines

For events in the period March 23 to April 5, notices must be submitted on proper Calendar forms no later than 4 p.m. on Thursday, March 13 to the Community Relations Office, 6328 Memorial Road, Room 207, Old Administration Building. For more information, call 228-3131.

The Vancouver Institute.

Saturday, March 8.

The Role of Polling in Canadian Society. Martin Goldfarb, Goldfarb Consultants.

Saturday, March 15

The Silent Food War. Dr. Partha Dasgupta, Economics, Cambridge University. (The E. S. Woodward Lecture)

Lecture Hall 2, Woodward Instructional Resources Centre, 8:15 p.m. Free admission.

SUNDAY, MARCH 9

French Intensive Sunday.

All-day French conversational program. $60 includes lunch and dinner. For information, call Language Programs and Services, Centre for Continuing Education, 222-5227. Room D339, Buchanan Building. 10 a.m. - 10 p.m.

MONDAY, MARCH 10

Plant Science Seminar.

Plant Collecting in Korea. Peter Wharton, Plant Science and Botancial Garden, UBC. Room 342, MacMillan Building. 12:30 p.m.

Mechanical Engineering Seminar.

Flame Stretch. Dr. H. Daneshyar, visiting professor, University of Cambridge. Room 1202, CEME Building. 3:30 p.m.

Applied Mathematics Seminar.

The Role of Heating and Evaporation from the Sea Surface in Rapid Storm Development of the B.C. Coast. Dr. Maurice Danard, Computer Science, University of Victoria. Room 229, Mathematics Building. 3:45 p.m.

Zoology "Physiology Group" Seminar.

Quantal Behaviour in Muscle Contraction. Dr. G. Pollack, Bioengineering, University of Washington. Room 2449, Biological Science Building. 4:30 p.m.

Theatre Lecture.

Centre for Continuing Education presents the final talk in Backstage at the Frederic Wood Theatre series. As You Like It by Shakespeare. Dr. John Brockington, Head, Theatre, UBC. Tickets are $8. For information 222-5254. Conference Room, Carr Hall, Centre for Continuing Education. 7:30 p.m.

TUESDAY, MARCH 11

Library, Archival and Information Studies Colloquium.

The Quality of Working Life. William Jeffrey, management consultant. Room 835, North Wing, Main Library. 11:30 a.m.

Botany Seminar.

Photosystem 11 Reaction Centre. Edith Camm, Botany UBC. Room 3219, Biological Science Building. 12:30 p.m.

Chemistry Seminar-Dow Lecture.

Communication of Energy and Information in Chemical Microstructures. Prof. Larry R. Faulkner, Chemistry, University of Illinois, Urbana-Champaign. Room 250, Chemistry Building. [illegible] p.m.

Oceanography Seminar.

The Petroleum Geology of Canadian Pacific Continental Margin. Dr. Chris Yorath, Pacific Geosciences Centre, Sidney, B.C. Room 1465, Biological Science Building. 3:30 p.m.

Metallurgical Engineering Seminar.

Composite Materials. B. Wiskel, Metallurgical Engineering, UBC. Room 317, Frank Forward (Metallurgy) Building. 3:30 p.m.

Geophysics and Astronomy Seminar.

Cratonization and Thermal Evolution of the Mantle. Dr. Henry Pollack, Geological Sciences, University of Michigan. Room 260, Geophysics and Astronomy Building. 4 p.m.

Tuesday Music Mini-Series Part III.

Contemporary music combining clarinet, video and electronics. Gerard Errante, clarinetist. Tickets: $5 for adults, Dept. of Music students free. UBC Recital Hall. 8 p.m.

WEDNESDAY, MARCH 12

Pathology Seminar.

-Adrenoceptors in Brown Fat of Infant Rats. Iqbal M. Shaikh, Pathology, UBC. Room 202, The Research Centre, 950 W. 28th. Ave. 12 noon.

Pharmacology and Therapeutics Seminar.

Epidemiologist's View of Causation. Dr. Clyde Hertzman, Health Care and Epidemiology, Faculty of Medicine, UBC. Room 317, Basic Medical Sciences Building, Block C. 12 noon.

Forestry Seminar.

Forest Nurseries in B.C. Present Status and Future Needs. Dr. D. P. Lavendar, Forest Sciences, UBC. For further information, call 228-2507. Room 166, MacMillan Building. 12:30 p.m.

Wednesday Noon Hour Concert.

Robert Jordan, guitarist, plays guitar music of the Twentieth Century. Free admission. UBC Recital Hall. 12:30 p.m.

Thunderbird Rugby.

UBC vs the University of Victoria in the annual 'Boot' game. For further information, call 228-3917. Thunderbird Stadium. 3 p.m.

Geography Colloquium.

Communications, High Technology, and Urban Development. Prof. Walter G. Hardwick, Geography, UBC. Room 201, Geography Building. 3:30 p.m.

Animal Resource Ecology Seminar.

Variation in Anti-Herbivore Defense of Tropical Trees. Dr. Phyllis Coley, Biology, University of Utah. Room 2449, Biological Science Building. 4:30 p.m.

THURSDAY, MARCH 13

Medical Grand Rounds.

C.O.P.D. and Respiratory Muscle Fatigue. Dr. Jeremy Road, Division of Respiratory Medicine, Health Sciences Centre Hospital. Lecture Theatre Room G279, Acute Care Unit, Health Sciences Centre Hospital. 12 noon.

Classics Lecture.

The Roman Goddess Juno. Prof. Daniel Harmon, Chairman, Classics, University of Washington, Seattle. Sponsored by Committee on Lectures. Room A202, Buchanan Building. 12:30 p.m.

Animal Science Lecture.

Aquacultural Activities of B.C. Research. Mr. Michael Gordon, B.C. Research. Room 166, Auditorium, MacMillan Building. 12:30 p.m.

Resume Writing.

Career Series for Women. Anne Budgell, employment advisor, Canada Employment Centre, UBC. Pre-register at Office for Women Students, Brock Hall 203. Free workshops for UBC Women Students. Enquiries: 228-2415. Room 106 A,B, and C, Brock Hall. 12:30-2:20 p.m.

Germanic Studies Film Series.

Georg Buechner's Woyzech. Room A104 Buchanan Building, 12:30 p.m.

Occupational Therapy Lecture.

Empathy and Biographical Interpretation: A View from Humanistic Anthropology. Dr. Gelya Frank, Occupational Therapy and Anthropology, University of Southern California, and President of the Society of Humanistic Athropology. IRC 3. 12:30 p.m.

Environmetrics Seminar.

The Design of the U.S. Dry Deposition Network. Dr. Peter Finkelstein, Environmental Protection Agency, North Carolina. Room 225, Mathematics Building. 3:30 p.m.

Physics Colloquim.

The Pion as 'Seen' at Extremely Small Distances. Dr. Stewart Smith, Physics, Princeton University. Room 201, Hennings Building. 4 p.m.

Microbiology Seminar.

Direct Microbial Fermentation of Cellulose to Ethanol. Dr. Charles Cooney, Chemical Engineering, MIT. IRC 1. 4 p.m.

FRIDAY, MARCH 14

Philosophy Lecture.

A Philosophical Analysis of Aesthetic Response. Prof. Alan Code, Philosophy, University of California, Los Angeles. Sponsored by Committee on Lectures. Buchanan Penthouse. 12:30 p.m.

Pharmaceutical Sciences Seminar.

The Influence of Hyperthyroidism on the Responsiveness of Vascular Adrenoceptors. Dr. Paul Grassby, Pharmacology and Toxicology, Pharmaceutical Sciences, UBC. IRC 3. 12:30 p.m.

Medical Genetics Seminar.

Autosomal Dosage Compensation. Dr. Bob Devlin, *Biology, Simon Fraser University. Parentcraft Room,* Grace Hospital. 1 p.m.

University Singers.

Directed by James Fankhauser. Performance of folk songs and spirituals. Admission free. UBC Recital Hall. 8 p.m.

SATURDAY, MARCH 15

Genealogy Seminar.

Origins in England and Wales. Gretha Maria Warren, principal instructor and other subject specialists. $45, 222-5237, 222-5252 (pre-registration required). Sponsored by the Centre for Continuing Education. Room 839, Main Library. 9 a.m.-5 p.m.

Thunderbird Rugby.

UBC vs The University of California in the World Cup. For information, call 228-3917. Thunderbird Stadium. 2:30 p.m.

MONDAY, MARCH 17

Plant Science Seminar.

Dynamics of the Serengeti-Mara Woodlands. Holly Dublin, Zoology, UBC. Room 342, MacMillan Building. 12:30 p.m.

History Lecture.

Protestantism, Enthusiasm and Secularization in the Early Modern Period. Prof. Michael Heyd, History, Hebrew University, Jerusalem. Sponsored by the Committee on Lectures and Vancouver School of Theology. Room 105, Iona Building. 12:30 p.m.

Cecil H. and Ida Green Lecture.

The Poetry of Pablo Neruda. Prof. Arthur Terry, Literature, University of Essex. Room A100, Buchanan Building. 12:30 p.m.

Slavonic Studies Lecture.

The Slavic Fact in Canada and its Implications: The Case of the Ukranian Community. Peter Savaryn, Q.C., Chancellor, University of Alberta. Room 101 and 102, Law Building. 12:30 p.m.

Botany Seminar.

Plasmids in the Genus Agaricus. Paul Horgen, Mushroom Research Group, University of Toronto. Room 3219, Biological Science Building. 12:30 p.m.

Germanic Studies Lecture.

Paradox, Metaphor and Ambiguity in Kafka. Prof. Hans Helmut Hiebel, University of Graz, Austria. Buchanan Penthouse. 12:30 p.m.

E.S. Woodward Lecture

The Silent Food War. Prof. Partha Dasgupta, Economics, St. John's College, Cambridge University. Room 110, Angus Building. 12:30 p.m.

Chemical Engineering Seminar.

A New Rheometer for Molten Plastics. Jeffrey Giacomin, Chemical Engineering, McGill University. Room 206, Chemical Engineering Building. 1:30 p.m.

Hispanic Studies Seminar.

Reading Spanish Poetry. Prof. Arthur Terry, Literature, University of Essex. Sponsored by the Cecil H. and Ida Green Visiting Professorships. Buchanan Penthouse. 3:30 p.m.

Education Lecture.

Educating the Reflective Practitioner: The Role of Artistry in Professional Education. Dr. Donald Schon, Ford Professor of Education and Urban Studies, Massachusetts Institute of Technology. Room 100, Scarfe Building. 3:30 p.m.

Mechanical Engineering Seminar.

Computer Aided Rolling of Parts with Variable Rectangular Cross-Section. Mr. N. Sepehri. Stirling Engine Regeneration. Mr. R. Stowe. Room 1202, CEME Building. 3:30 p.m.

Germanic Studies Seminar.

Kafka's Novel The Judgement. Prof. Hans Helmut Hiebel, University of Graz, Austria. Room B314, Buchanan Building. 3:30 p.m.

Applied Mathematics Seminar.

Topographic Waves in the Evolution of Geostrophic Flows. Dr. Ted Johnson, The Joint Institute for the Study of the Atmosphere and Ocean University of Washington, Seattle, Washington (Currently visiting from Math Dept., University College, London, England). Room 229, Mathematics Building. 3:45 p.m.

UBC Opera Theatre.

The Western Canadian premiere of Postcard from Morocco by Dominic Argento. A modern opera fully staged and directed by French Tickner, with the UBC Contemporary Players conducted by Eugene Wilson. Continues until March 22. Tickets are $9 for adults, $5 *for students and seniors, $4 for parties of 50 or more.* UBC Old Auditorium. 8 p.m.

TUESDAY, MARCH 18

Library, Archival and Information Studies Colloquium.

Perspectives on User Studies. Dr. Thomas Wilson, head, Information Studies, University of Sheffield. Room 835, North Wing, Main Library. 11:30 p.m.

Developmental Psychology Colloquium.

Developmental and Age-Related Factors in Depression, Stress and Coping in the Elderly. Dr. Prem S. Fry, Educational Psychology, University of Calgary. Room 33, Henry Angus Building. 12 noon to 2 p.m.

Institute of Asian Research Film.

Sartori in the Right Cortex. Japanese approach to life and nature. NFB film. Free admission. Auditorium, Asian Centre. 12:30 p.m.

Botany Seminar.

Biotechnological Approaches to Mushroom Strain Improvement. Paul Horgen, Mushroom Research Group, University of Toronto. Room 3219, Biological Science Building. 12:30 p.m.

Chemistry Seminar.

Gold Anti-arthritic Drugs and Their Interactions with Biological Systems. Prof. Colin L. Lock, Chemistry, McMaster University. Room 250, Chemistry Building. 1 p.m.

Metallurgical Process Engineering Lecture.

Advances in Electrometallurgy. Prof. J.W. Evans, Materials and Mineral Engineering, University of California, Berkeley. Room 317, Frank Forward (Metallurgy) Building. 3:30 p.m.

Gerontology Lecture.

Stress and Coping in the Elderly: Clinical and Programmatic Issues. Dr. Prem S. Fry, Educational Psychology, University of Calgary. This program is being supported by the Committee on Gerontology; Counselling Psychology; School of Family and Nutritional Sciences. For details, call 228-5881. Room #1, Adult Education Research Centre, 5760 Toronto Road, UBC. 7 p.m.-9 p.m.

WEDNESDAY, MARCH 19

Pharmacology and Therapeutics Seminar.

The Effects of Various Vasoconstrictors on Mean Circulatory Filling Pressure in Conscious Rats. Reza Tabrizchi, Pharmacology and Therapeutics, Faculty of Medicine, UBC. Room 317, Basic Medical Sciences Building, Block C. 12 noon.

Christian Science Lecture.

The Logical Certainty of Christian Science Healing. Bruce Fitzwater, member of the Christian Science Board of Lectureship. Room 207, Student Union Building. 12:30 p.m.

Wednesday Noon-Hour Concert.

Jane Coop, piano. Music of Beethoven and Ravel. Admission free. UBC Recital Hall. 12:30 p.m.

Forestry Seminar.

State of Forest Management in Canada. Dr. G.F. Weetman, Forest Sciences, UBC. For further information, call 2507. Room 166, MacMillan Building. *12:30 p.m.*

Cecil H. and Ida Green Lecture.

The Illusion of Realism: The 19th Century European Novel and its Modern Critics. Prof. Arthur Terry, Literature, University of Essex. Room A100, Buchanan Building. 12:30 p.m.

Comparative Literature Colloquium.

Series on-What is a Text? Residential Textuality and Social Class. Prof. Shelagh Lindsey, Architecture, UBC. Room A205, Buchanan Building. 3:30 p.m.

Geography Colloquium.

Non-Commodity Resource Values. Prof. Ervin Zube, Renewable Natural Resources, University of Arizona, Tuscon. Room 201, Geography Building. 3:30 p.m.

Hispanic Studies Seminar.

Spanish Baroque Poetry and the English Metaphysicals: Similarities and Differences. Prof. Arthur Terry, Literature, University of Essex. Sponsored by Cecil H. and Ida Green Visiting Professorships. Buchanan Penthouse. 3:30 p.m.

Linguistics Seminar.

Extraposition. Prof. Peter W. Culicover, Chairman, Linguistics, University of Arizona. Room D225, Buchanan Building. 3:30 p.m.

Geophysics and Geology Seminar.

Crustal Transect Construction from a Largely Geological *Perspective: The Southern Canadian Cordilleran* Experience. Dr. J. Monger, Geological Survey of Canada, Vancouver. Room 260, Geophysics and Astronomy Building. 4 p.m.

Animal Resource Ecology Seminar.

Effects of Habitat Geometry and Conspecific Cues on Territorial Behaviour. Dr. Judy Stamps, Zoology, University of California at Davis. Room 2449, Biological Sciences Building. 4:40 p.m.

Thunderbird Rugby.

UBC vs The Red Lions. For information, call 228-3917. Thunderbird Stadium. 7:30 p.m.

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THURSDAY, MARCH 20

Psychiatry Lecture.
Attachment and Suicide. Dr. Kenneth S. Adam, Psychiatry, McMaster University. Room 2N A/B, Health Sciences Centre Psychiatric Unit. 9 a.m.

Medical Grand Rounds.
Measuring Quality of Life in Cancer. Dr. David Osoba, Medical Oncology, Health Sciences Centre Hospital. Lecture Theatre Room G279, Acute Care Unit, Health Sciences Centre Hospital. 12 noon.

Linguistics Lecture.
Situating Linguistics in Cognitive Science. Prof. Peter W. Culicover, Chairman, Linguistics, University of Arizona. Sponsored by Committee on Lectures. Room A100, Buchanan Building. 12:30 p.m.

Chinese Music Recital.
UBC Chinese instrument ensemble presents a program of traditional and contemporary Chinese music. Alan Thrasher, director, with Zheng Zheng-Hua and Zhang Tai-Ning. Recital Hall, Music Building. 12:30 p.m.

Germanic Studies Film.
Guenter Grass' Katz und Maus. Room A104, Buchanan Building. 12:30 p.m.

Career Series for Women.
Job Hunting. Caren Durante, Office for Women Students. Pre-register at Office for Women Students, Brock Hall, 203. Free workshops for UBC women students. Enquiries: 228-2415. Room 106 A, B, and C, Brock Hall. 12:30-2:20 p.m.

Underwater Science Lecture.
Developments in Decompression Research. John Fitz-Clarke, Mechanical Engineering, UBC. Room 1465, Biological Sciences Building. 3:30 p.m.

Philosophy Lecture.
Belief and Direct Reference. Prof. Scott Soames, Philosophy, Princeton University. Sponsored by Committee on Lectures. Buchanan Penthouse. 3:30 p.m.

Physics Colloquium.
Muon Catalyzed Fusion. Dr. Claude Petitjean, Swiss Institute of Nuclear Research. Room 201, Hennings Building. 4 p.m.

Faculty Women's Club.
Preview of Our Expo Guest Ramses II followed by a general meeting. Prof. Hanna Kassis, UBC. Husbands and friends welcome. Cecil Green Park. 8 p.m.

FRIDAY, MARCH 21

UBC Percussion Ensemble.
John Rudolph, director. Works by Colwell, Khachaturian, Michael Colgrass and Scott Joplin. Admission is free. UBC Recital Hall. 12:30 p.m.

Pharmaceutical Sciences Seminar.
Studies on the Role of Cyclic AMP in the Regulation of Vascular Smooth Muscle Tension. Raju Vegesna, Pharmacology and Toxicology, Pharmaceutical Sciences, UBC. IRC 3. 12:30 p.m.

Medical Genetics Seminar.
Approaches to the Study of H Genes in Cultured Cells. Dr. Peter Candido, Biochemistry, UBC. Parentcraft Room, Grace Hospital. 1 p.m.

Notices . . .

Badminton Club.
Faculty and Staff Badminton Club meets Tuesdays 8:30-10:30 p.m. and Fridays 6:30-9:30 p.m. in Gym B of the Robert Osborne Sports Centre. New members welcome. Fees $10 per term. For more information, call 228-4025.

Volunteers Wanted.
A study designed to treat Primary Chronic Insomnia is currently being conducted in the psychology department. Healthy people between the ages of 19 and 45 years who take an hour or more to fall asleep are eligible to participate. The purpose of the project is to develop non-drug therapies for insomnia sufferers. The study will compare a number of different relaxation treatments, including guided relaxation exercises and various relaxation environments. The treatments being used are not experimental, as they have all been reliably shown to induce a deep state of relaxation. What is new is the combination of treatments being studied and their application to insomnia. To volunteer for this study, or to get more information, please call Elizabeth at 228-6666.

Toastmasters Meetings
Walter Gage Toastmasters meetings are held Thursday at 7:30 p.m. in Room 260, MacMillan Building (Forestry). All students and faculty are welcome. For more information, contact Bruce Kozak at 681-3759 or Bill Brendan at 325-1414.

French Conversation.
Non-credit conversational programs in French begin the week of March II. A Saturday morning class in Language Teaching Techniques is also available. For more information, call Language Programs and Services, Centre for Continuing Education, 222-5227.

Asian Exhibit.
Eastern Eyes, Western Lenses, portrait-styled busts using Eastern concepts, Western techniques, will be on display in the Asian Centre until March 16, 12-5 p.m. daily. Sculptor: Mary-Ann Liu, Chinese-Canadian artist. Sponsored by the Institute of Asian Research. For more information call 228-2746 or 681-5833.

UBC Bookstore
The last day for departmental requistions (prior to Inventory Closure) at the University Central Supplies Department will be March 26.
The Bookstore will be closed March 28-31 (Easter holidays) and April 1 and 2 (stocktaking). The Bookstore will reopen 8:30 a.m. April 3.

Medical Services Plan Increase.
The Government of British Columbia has announced an increase in the premiums for the Medical Services Plan. Effective April 1, 1986, the new monthly rates are $18 for a single person, $34 for a family of two and $38 for a family of three. If you are currently enrolled in UBC's group MSP program deductions for your share of the premiums will be increased on the March 30, 1986 paycheque.

Excellence

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development in Asia, and was the recipient in 1982 of a $300,000 grant from the Max Bell Foundation of Toronto for a project on "Canada and the Changing Economy of the Pacific Basin."

A total of 28 research papers have been published on this theme dealing with topics such as Canada's trade and energy supply and demand in the Pacific basin and other aspects of Canada's economic relationship with the region. Eleven faculty members from UBC and Simon Fraser University are involved in an on-going research program.

As part of this project the institute has sponsored meetings for Canadian businessmen aimed at improving Canadian business presence in the Asia-Pacific region.

In addition, the institute has organized several series of lectures which have seen Asian and Western experts in a variety of fields come to UBC to give lectures and seminars. It also organizes workshops and conferences, co-sponsors art exhibitions, films and cultural events and publishes a newsletter focusing on current activities related to Asia on the campus and in the community.

JAPANESE LEGAL STUDIES PROGRAM. The first Japanese Legal Studies Program in Canada was established at UBC in 1979 in response to the growing need for legal expertise to advise on the complexities of doing business in Japan.

More than 200 students have enrolled for courses in Japanese law since the program was initiated and UBC has built up a reputation as the leading information resource in the country. Chinese law has been added to the program recently and the Faculty of Law's aim is to become the Canadian centre for the study of Asia-Pacific law generally.

A 1981 grant of $275,000 from the Max Bell Foundation enabled the program to embark on a series of comparative studies of Japanese and Canadian law in the areas of commerce and trade, labor, the environment, securities regulation and condominiums and housing.

INSTITUTE OF INTERNATIONAL RELATIONS. This institute, which is also in the Faculty of Graduate Studies, sponsors an active research program that often includes work related to the Asia-Pacific basin.

Currently under way are two major research projects, part of a larger study entitled "Canada and International Regulatory and Management Regimes," funded by a $300,000 grant from the Donner Canadian Foundation.

Robert Paterson of the Faculty of Law is researching regional and bilateral trade agreements among Pacific basin countries and Prof. Frank Langdon and Dr. Douglas Ross of the institute's staff are investigating Canada and security cooperation in the Pacific region. Asian affairs are included as part of other larger studies.

An earlier research project on Canada and International Trade sponsored by the institute resulted in the publication of more than 20 papers on Asia-Pacific trade alone and many more that touched on Asia in the context of a larger study.

ASIAN CENTRE. Much of the activity associated with Asian Studies at UBC takes place at the Asian Centre, a handsome four-storey building that began life as the pavilion for the Sanyo Corporation at Expo 70 in Osaka, Japan.

The steel girders that supported the pavilion's pyramidal roof were donated by Sanyo. Vancouver architect Donald Matsuba redesigned the interior of the building to meet the needs of the University. Opened in 1981, the centre houses the Asian Studies Library, the Department of Asian Studies and the Institute of Asian Research.

The building also contains an auditorium for lectures, musical performances, art exhibits and social events. Occasional performances of the famous Japanese tea ceremony are held in the centre. UBC has encouraged organizations representing various Asian Pacific ethnic groups to make use of the building

In an adjoining garden area of the centre is a recently erected bell tower containing a traditional Japanese temple bell donated to the University.

EXCHANGE AGREEMENTS. The University has or is developing a number of agreements with Asia-Pacific universities that will permit regular exchanges of faculty members and students for academic purposes. This interaction has developed valuable links for UBC in Asia and Southeast Asia.

An example of a developing connection is one between the UBC School of Social Work and the Faculty of Social Administration at Thammasat University in Thailand, which would provide for Thai faculty to examine community projects and program evaluation in western Canada and UBC faculty to examine community approaches to rural development in Thailand.

Closely linked to Asian Pacific studies is the centre of excellence in international finance and trade to be located in UBC's Faculty of Commerce and Business Administration.

The private sector and the provincial and federal governments and their agencies already make use of the enormous strength of the faculty in international business.

Much of UBC's activities are carried on through the faculty's Centre for International Business Studies, funded by the Department of External Affairs and private sector organizations. The centre is dedicated to the promotion of research in international trade, and to disseminating the information to businessmen, government officials and students through courses and workshops.

Here is a sample of research taking place in the faculty.

On behalf of the provincial Ministries of Finance and Consumer and Corporate Affairs, Dr. Michael Goldberg is leading a team of faculty members studying the feasibility of establishing an international financial service centre in Vancouver and policy options that would encourage its success. Such an international financial centre has long been a priority of the provncial government. In his recent budget speech, federal Finance Minister Michael Wilson said his government would create international financial service centres in Vancouver and Montreal.

Dr. Trevor Heaver, director of the Centre for Transportation Studies in the faculty, was a member of the recent task force on shipping policy for the federal Ministry of Transport. One of the recommendations of the task force was that special tax status be given to international shipping companies, an arrangement similar to incentives for establishing an international financial services centre.

Dr. Goldberg has also completed research on the impact of overseas Chinese business on North American cities such as Vancouver. His work shows how Asian capital is invested in North American economies and suggests policies to increase the flow of capital funds into B.C. and to accelerate Asian trade.

Drs. Ilan Vertinsky and Peter Nemetz have completed a series of studies on energy markets for B.C. products in Japan and other ASEAN countries. One conclusion of their research is that technological changes among Asian steel and aluminum producers could dramatically reduce demand for Canadian coking coal in four or five years.

Dr. Vertinsky is also involved with Dr. William Stanbury in examining the competitive position of 36 companies representing 96 per cent of the B.C. forest industry. They examined return on investment, costs, products and the impact of technological change.

Drs. James Brander and Barbara Spencer are leaders of a group of economists known as the young Turks who have developed some challenging new theories on international trade. Their work has major implications for trade negotiatons and stimulation of high-tech industries through government encouragement and subsidies.

Providing Canadian businessmen access to UBC's experts is critical, particularly to businessmen wanting to their trade with Asia. Through its Executive Programmes, the Centre for International Business Studies has held workshops in Canada and Asia for Canadian businessmen, and has organized a visit to China that put Canadian businessmen in direct contact with senior Chinese government and industry leaders.

A meeting to prepare Canadian businessmen planning to visit China was so over-subscribed last year that it had to be moved from the board room of the Hong Kong Bank of Canada to the Asian Centre on campus.

The faculty also organized meetings in Beijing and Shanghai. These involved one-on-one meetings between Canadian chief executive officers from the petroleum distribution, telecommunications, transportation, oil drilling equipment, agricultural, chemical, advertising, insurance and financial services industries and appropriate representatives from Chinese industry or government agencies.

Seminars for Canadian businessmen on new legislation influencing trade with China were held in Hong Kong and Macau.

The Faculty of Commerce and Business Administration is the most active business school in Canada for educating students and faculty from China.

On behalf of the Canadian International Development Agency (CIDA), the faculty provides orientation for all Chinese MBA students arriving in Canada to study at Canadian universities.

Also at CIDA's request, the faculty is helping to improve management education in China. Four professors and 16 graduate students from Shanghai Jiao Tong University are currently studying at UBC. Six of these students are working at the Ph.D. level.

FIRST CLASS MAIL

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