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PROGRAM REVIEW REPORT

on the

RESPIRATORY THERAPY PROGRAM



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PROGRAM REVIEW REPORT
on the
RESPIRATORY THERAPY PROGRAM

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JUNE

1994

OFFICE OF INSTITUTIONAL RESEARCH & PLANNING

SUMMARY

The Respiratory Therapy Program Evaluation Committee found the Respiratory Therapy Program at UCC to be reasonably well regarded by employers and graduates. The program has built up a solid national reputation over the last 15 years, which has been reinforced by the consistently high scores achieved by graduates on the Canadian Society for Respiratory Therapy National Examination.

In spite of this external acknowledgment, it was clear from the program review that internal problems existed that were interfering with the successful delivery of the program. It was noted that in the areas of course content, student intake and curriculum design, modifications were needed in order to reduce the heavy student workloads and accompanying attrition.

The recommendations cited in this document accordingly suggest reducing the annual program intake to 48 students, adjusting the students' instructional workload downwards by 15%, addressing the high attrition rate by a series of strategies, and reviewing the consistency and application of department policies. The curriculum, too, needs to be overhauled to bring it into line with the changing health system; in particular, Respiratory Therapy faculty are urged to emphasize the "cross-training" and "multi-skilling" that the health industry now demands of its employees. Adjustments are also recommended in the core Respiratory Therapy courses 157 and 158, in Mechanical Ventilation, and in the English and Medical Sociology courses.

With high rates of interest indicated by current and former students in pursuing a degree program in Health Sciences, the Respiratory Therapy Department seems well positioned to move into this area. The nature and configuration of such a degree program are, however, outwith the terms of reference of this report.

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RESPIRATORY THERAPY

PROGRAM REVIEW

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RESPIRATORY THERAPY PROGRAM REVIEW

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INTRODUCTION

The second evaluation of the Respiratory Therapy Program was begun on October 19, 1993. The previous evaluation took place in 1988. Consultation on questionnaire design and evaluation process was conducted throughout late October and early November. Questionnaires were mailed to the following stakeholders: former students on November 25; clinical students on November 29; and Advisory Committee members and employers on November 30, 1993. Didactic and Clinical Faculty were surveyed on December 13, 1993, and service course Faculty on February 10, 1994. Two current student intakes were surveyed: the second year class on January 28 and the first year class on January 31, 1994.

Follow-up letters and second surveys were sent to former students, clinical students and Advisory Committee members on January 5, 1994. Follow-up letters were sent to employers on the same date. Telephonic contact with non-returnees was undertaken between January 24 and February 9. The cut-off date for all responses was March 9, 1994. The Evaluation Committee met to examine and analyze the summarized data on April 25 and 26, 1994.

BACKGROUND

UCC is the only educational institution in British Columbia to offer a program in Respiratory Therapy. The program is accredited by the Canadian Medical Association. The program consists of two eight-month sessions of instruction at UCC followed by 47 weeks of clinical training at accredited hospitals. Following successful completion of the program the graduate is awarded a College Diploma and is eligible to sit the national board examinations of the Canadian Board for Respiratory Care, for the professional qualification of R.R.T. (Registered Respiratory Therapist).

The curriculum is a national one, designed by the Canadian Society of Respiratory Therapists' Curriculum Committee.

During the first two years of the program, students spend some time at the Royal Inland Hospital, Kamloops, observing clinical procedures. The clinical year begins in early June following the second College session and students spend time at various hospitals gaining exposure to all aspects of the duties of a Respiratory Therapist. Clinical year students will rotate between hospitals in the Interior, Lower Mainland and Vancouver Island and applicants must be prepared to relocate as required.

ADMISSIONS DATA AND PERFORMANCE STATISTICS

Admission Requirements:

a) Educational Requirements:

- 1) B.C. Grade 12 graduation with a C+ minimum average or equivalent.
- 2) B.C. Math 12* - C+ minimum grade or equivalent.
- 3) B.C. Chemistry 12* - C+ minimum grade or equivalent.
- 4) B.C. Biology 12* - C+ minimum grade or equivalent.
- 5) B.C. English 12 or equivalent - C+ minimum grade, or Level 3 on LPI or completion of English 050 or equivalent.
- 6) B.C. Physics 11 or equivalent - C+ minimum.

* These credits must normally have been obtained within five years of application.

b) General Requirements:

- 1) Successful medical
- 2) Complete immunization schedule
- 3) Contact with program faculty
- 4) Mandatory hospital tour--form to be signed by a Clinical Instructor or Department Head.
- 5) Completion of "C" level CPR
- 6) Completion of a student success program is highly recommended. See "Student Success Seminars" in the UCC Calendar.

Promotion Policy:

As courses completed in the fall semester of first year are pre-requisites for courses taken in the winter semester, students may be prevented from advancing to some course work in the winter semester because of a failure in a pre-requisite course.

Admission to the second year is granted to students who have successfully completed the first year of the program with at least an overall grade point average of 2.5 and a C+ or better in BIOL 159/169, CHEM 157, PHYS 157/167 and all RESP courses.

Graduation from the three-year program requires that the student acquire an overall grade point average of 2.5. The graduate will receive a diploma in Respiratory Therapy. The diploma does not qualify the student to undertake employment as a respiratory therapist, but designates the student as a graduate therapist who is eligible to write the board examination.

Completion Requirement:

Program completion is expected within three consecutive years following entry. At the discretion of the Chairperson, this may be extended to four consecutive years.

- * Students will be required to undergo immunization for Hepatitis B before entering the clinical year.

Failures and Repeats:

Failing or withdrawing students should recognize that there is no guarantee of the opportunity to repeat courses. The ability to cater to requests to repeat courses will depend upon the number of spaces available after first time full-time students have been accommodated. The maximum number of clinical places for 3rd year students of the program is 48-51.

A student who fails a course(s) will be required to repeat the course(s) within one calendar year. A failed course can only be repeated in the semester in which it is offered in the following year. The laboratory component of the failed course must also be repeated, lab marks will be integrated within the course. Students must re-register for the course and pay the appropriate fees for any repeated courses.

A student who has previously failed in a health-related program and who subsequently applies for admission to the same program or to another health-related program will be regarded as a repeating student, unless he/she can show cause for being treated as a new student.

When the number of repeating student applicants for a program exceeds the number of available seats, the student(s) admitted will be those who achieved the highest cumulative GPA over courses listed in the program matrix. The relevant department may require potential repeating students to challenge certain portions of courses in which they previously received credit, in order that the currency of practical skills can be assessed. All potential repeating students are reminded that they are subject to program completion-time requirements.

A student who receives a failing grade in a course for failure to meet objectives related to professional responsibility, professional accountability or patient safety may be refused re-admission to the program, (or another health-related program) at the recommendation of the Departmental Chairperson and the approval of the Divisional Dean.

All potential repeating students are reminded that they are subject to program completion time requirements.

Application Data:

Applications have been robust for the past five years, outnumbering places by ratios as high as 2:1.

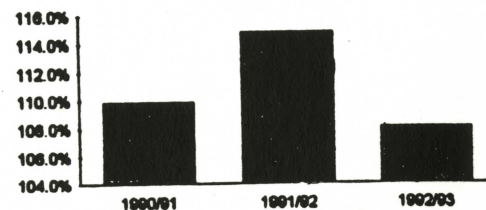
1989:	76 applicants for 45 seats
1990:	92 applicants for 60 seats
1991:	100 " " 60 "
1992:	119 " " 60 "
1993:	114 " " 60 "

Program Utilization Rates Over Past Three Years:

FTE Utilization Rates

	Funded FTE	Actual FTE	Util. Rate
1990/91	84.0	92.3	109.9%
1991/92	94.0	107.9	114.8%
1992/93	98.0	105.9	108.1%

FTE Utilization Rates



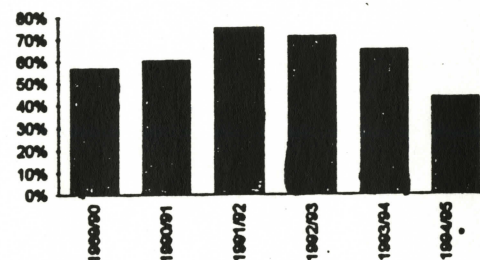
Enrolment & Completion Rates:

Program Completion Rates

	1st enrolled	Graduated	Compl. Rate
1986/87	30		
1987/88	48		
1988/89	48		
1989/90	45	17	57%
1990/91	60	29	60%
1991/92	60	36	75%
1992/93		32	71%
1993/94		39	65%
1994/95 *		26	43%

* Estimated

Program Completion Rates

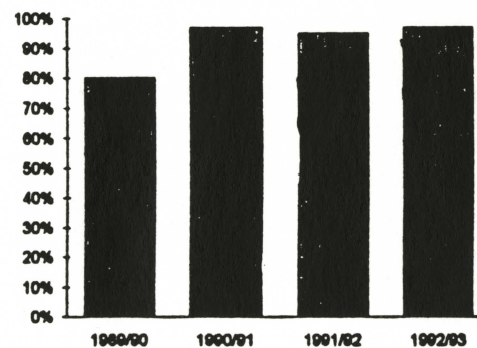


Retention Rates (1st to 2nd year only)

Retention after 1st Year

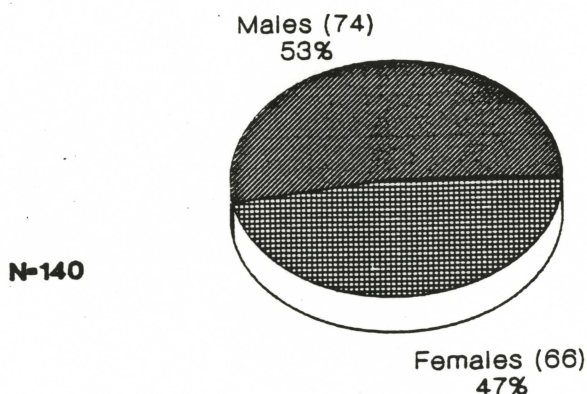
1989/90	80%
1990/91	97%
1991/92	95%
1992/93	97%

Program Retention Rates



Gender Ratio:

Of 140 former students from the Respiratory Therapy Program who were sent surveys (1987-1992), 74 (53%) were males and 66 (47%) were females for a ratio of 37:33.



Grade Distribution:

Grade distribution for the Respiratory Therapy Program (1990-1992) are illustrated in the graphs below.

Grades Distributions of Selected Courses in Respiratory Therapy Program

Fall 1990

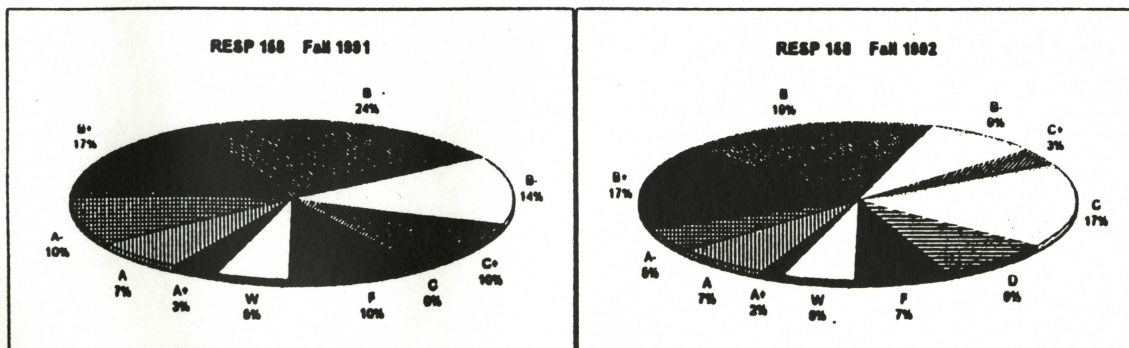
	A+	A	A-	B+	B	B-	C+	C	D	F	W
RESP157 Intro. to Resp. Therapy	12	16	12	10	5	3				1	2
RESP158 Instrumtn for Resp. Thrp							2				
RESP256 Resp. Therapy Practical 1		1	5	6	11	9	2			2	

Fall 1991

	A+	A	A-	B+	B	B-	C+	C	D	F	W
RESP157 Intro. to Resp. Therapy	5	15	10	9	10	1				3	3
RESP158 Instrumtn for Resp. Thrp	2	4	6	10	14	8	6			6	3
RESP256 Resp. Therapy Practical 1		7	8	12	10	5	4	6	1		

Fall 1992

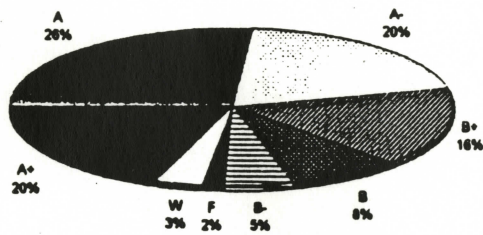
	A+	A	A-	B+	B	B-	C+	C	D	F	W
RESP157 Intro. to Resp. Therapy	3	6	9	13	6	2	2	12	1	1	3
RESP158 Instrumtn for Resp. Thrp	1	4	3	10	11	5	2	10	5	4	3
RESP256 Resp. Therapy Practical 1			1	5	5	4	1	4		1	



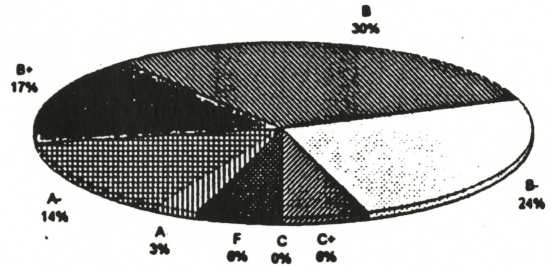
Grade Distribution (cont.):

Grades Distributions of Selected Courses in Respiratory Therapy Program

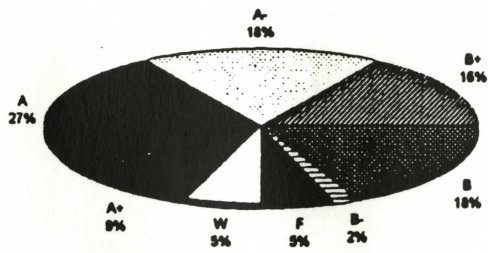
RESP 157 Fall 1990



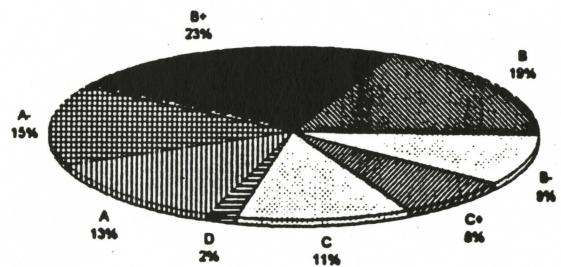
RESP 256 Fall 1990



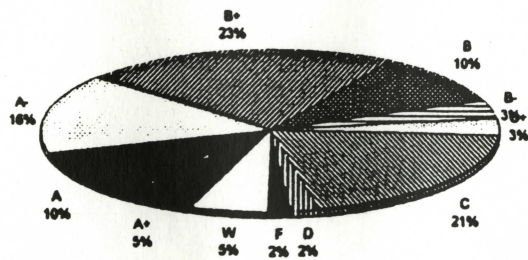
RESP 157 Fall 1991



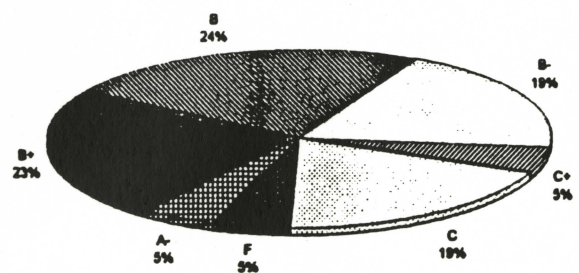
RESP 256 Fall 1991



RESP 157 Fall 1992



RESP 256 Fall 1992



TABULAR SUMMARY OF QUESTIONNAIRE RESPONSES

The categories and quantities of responses are tabled below:

Recipient		# Sent	# Completed and Returned	% Return
Employers		33	20	61%
Advisory		10	9	90%
Faculty:	Clinical	8	7	88%
	Didactic	8	8	100%
	Support	13	10	77%
Students:				
Current:	1st yr.	60	51	85%
	2nd yr.	40	34	85%
	Clinical (cur.)	26	14	54%
Former		140	48	34%
TOTAL		337	200	59%

Former Students:

Returned by Post Office: 36/140 (26%)

Non-Respondents: 56/140 (40%) as at March 29, 1994

SUMMARY OF QUESTIONNAIRE RESPONSES

The following trends were detected in the questionnaire responses:

1. Employers:

Of 33 employers surveyed, 20 responded, yielding an excellent response rate of 61%. In general, employers felt that graduates were well prepared in critical care but, in the light of shifting emphasis in the health care system, needed broader exposure to other aspects of the field.

There was strong consensus among the employers that employment prospects for Respiratory Therapy graduates are declining and that there are sufficient graduates at the moment to satisfy market needs.

A number of employer responses suggested that Respiratory Therapy graduates need more generic "people skills" as well as knowledge of organizational communication, e.g., team building and motivation.

Overall, however, employers expressed great satisfaction with the program, the instructors and the graduates and their relationship with UCC.

2. Advisory Committee Members:

Of 10 Advisory Committee members surveyed, 9 responded for a 90% return rate. They were more than satisfied with the quality of instruction in the program. Graduates, they felt, have been adequately prepared as Respiratory Therapists, one comment being, "Some of the best graduates in the country."

Some members felt that the Committee was not taking as active a role as it might in the direction of the program. They also identified the need for more practising Respiratory Therapists and student representation on the Advisory Committee. Infrequency of meetings and irregular attendance by Committee members were commented on.

3. Former Students:

Of 140 former students (1987-1992) surveyed, 48 responded for a return rate of 34%. The majority of these students indicated that the program was challenging and was effective in preparing them for employment. They also commented that they too saw a need to decrease the enrolment numbers in light of current employment trends. Comments made by these students were critical of the Mechanical Ventilation and Sociology courses.

There was a high degree of interest in the possibility of a degree program, with managerial and business skills, and community health care being cited as potentially useful fields of study to be incorporated into the degree.

Statistics, Sociology, and English were all criticized to some degree for being irrelevant; students begrudged the time spent on those subjects. Mechanical Ventilation also came under fire for containing too much historical material and not enough application.

Some students reported problems in finding employment as Respiratory Therapists. Other negative comments were made about the strict criteria for promotion within the program.

4. Current Students:

Three separate classes of current students were surveyed:

First year:

In a class of 60 students, 51 were surveyed for a response rate of 85%. Students noted a need for a better information package containing the specific information currently in the calendar. They would welcome the opportunity for better communication between program faculty and prospective students.

Deep concerns were expressed about the size of intake, the pressure it placed on lab time, and the perceived inadequacy of pre-requisites.

Concern was expressed about the following courses:

- * English (8 mentions): more emphasis on organizational communication was desired;
- * Statistics (10 mentions): this course is not perceived as being relevant to the profession;
- * Biology (14 mentions): "Is this a race?"
- * RESP 157 (13 comments): poor delivery, need for more overheads and better pacing;
- * RESP 158 (15 comments): need to cut down the sheer volume of detail.

Several respondents commented on issues of power, policy, and professionalism in the Respiratory Therapy Department. Promotional policy, in particular, attracted critical comments, as did examination scheduling.

Other services criticized were the Admissions Department, for apparent disorganization and indifference to student concerns; the Library, for limited hours of access [editorial note: this is a surprising and perhaps unjustified criticism given the fact that Library hours for Winter semester, 1994, were 8:00 a.m. - 10:00 p.m., Monday to Thursdays, 8:00 - 5:00 p.m. Fridays, and 9:00 a.m. - 5:00 p.m. Saturdays and Sundays.]; and the Bookstore for high prices--one student noted: "That textbook prices are significantly higher at UCC than other colleges and universities in B.C. and Alberta"; and another: "The Bookstore is well stocked but the cost of some of the books is up to \$15.00 more than that at the University of Alberta for the same books."

Second year:

In a class of 40 students, 34 were surveyed for a response rate of 85%. While most students indicated that the program was excellent, they did note the high attrition rate. Relatively low ratings (3.29, 3.09), were given to items on consistency and fairness of marking by faculty.

Students identified a number of concerns with the Sociology (16 mentions) and Mechanical Ventilation (20 mentions) courses. In the Mechanical Ventilation course it was recognized by the Committee that an understanding of the history of ventilation equipment was necessary. However, it was apparent from the survey results and the interviews that the field of Mechanical Ventilation is moving rapidly towards computerization and that this course should place greater emphasis on current equipment. Concerns were also expressed about the amount of rote instruction and memorization. With Sociology, the criticism was of relevance.

4. Current Students (cont.):

Second year:

Students commented on the attitudes of personnel in the Registrar's area. One student said: "I have had nothing but negative experiences in the Registrar's Office." Although the Library was considered to have a cozy atmosphere and the staff were regarded as helpful, the need for extended hours was evident, especially during exam time.

Concerns about the Bookstore were also expressed, for example, "The Bookstore is so expensive that it defeats the purpose of having one," and, "I go to other stores to buy supplies." Line-ups at the beginning of the term were cited as a problem, with one student recommending the use of checkout scanners in order to speed up the process.

Second year students identified the need for greater emphasis on cross-training, communication, patient, home care, and management skills, and expressed high interest in a degree program.

Clinical:

Twenty-six clinical students were surveyed through the mail with 14 responding for a response rate of 54%. These students felt that the Respiratory Therapy Program is particularly effective in employment preparation. They felt generally satisfied with instruction in the program, even though they gave a particularly low rating to "career counselling by faculty" (2.93).

They expressed desire for more clinical experience and more oral communication skills. One student commented, "I found that in my third year communication with nurses, doctors and other Respiratory Therapists was a very important aspect of the job."

On the other hand, concerns were expressed about job prospects, the need for faculty immersion in hospital settings, and better program information prior to admission. Mechanical Ventilation was rated as the most demanding course in the program by six out of 14 respondents.

Once again, high interest was expressed in a degree in Health Sciences.

5. Faculty:

Didactic:

All eight didactic faculty members surveyed responded for an excellent return rate of 100%. The didactic instructors expressed general satisfaction with the program, with some qualifications. Attrition was a concern identified by nearly all faculty. In addition, the exigencies of the health system were seen to necessitate a swing from a critical care to a community care emphasis.

Some dissatisfaction was also evident concerning the Advisory Committee's composition and function.

5. Faculty (cont.):

Clinical:

Seven out of eight clinical faculty members surveyed responded for an 88% return rate. They accorded lower ratings than their didactic colleagues to curriculum development time, professional development time, communication with other departments, and communication with business and industry. There were also some concerns about equipment and writing skills. They made the same suggestions for more emphasis on community health, public health, rehabilitative medicine, and home care as did the former students and the didactic faculty.

Support:

Thirteen support faculty were surveyed with 10 (77%) responding. They were generally satisfied with the work habits of the students (punctuality and attendance). They also indicated that they were impressed with the professional approach of Respiratory Therapy faculty to curriculum and pedagogical matters.

EMPLOYMENT PROSPECTS

Types of Employment:

According to Job Futures: British Columbia: an Occupational Outlook to 2001 (Statistics Canada, 1993), the majority of respiratory therapists work in hospitals, in research institutions and in other health care services. Graduates find employment in critical care wards, PF labs, cardiac labs, home care, etc. A certain number of jobs are also available in marketing and selling respiratory equipment.

Nature of the Work

Respiratory Therapy is an allied health discipline devoted to the scientific application of technology in order to assist in the diagnosis, treatment, management and care of patients with respiratory and associated disorders. Respiratory Therapists work primarily with acutely ill patients requiring life support in a critical care setting. Their role includes caring for patients in acute, chronic, and home care settings as well as providing health education to patients with cardiopulmonary disorders.

Therapists should have an aptitude for science and math and enjoy working with people. They must pay attention to detail, and operation of the sophisticated equipment requires both mechanical ability and manual dexterity.

B.C. Job Prospects:

Though the demand for full-time positions for graduates has decreased in the last three years, unemployed RRTs (Registered Respiratory Therapists) are rare. However, an increasing trend is for RRTs to take casual work or employment in non-training related fields. Some graduates do manage to find casual positions at more than one hospital, and therefore get close to full-time hours. These casual positions often become full-time positions within 1-2 years. The majority of our graduates find employment in the Lower Mainland, though we have had a number find employment in Eastern Canada (Ontario, New Brunswick, Newfoundland) as well as Alberta and Saskatchewan.

Respiratory Therapy is a small job group in B.C. with the number employed in 2001 expected to be about 540. These projections indicate an estimated 380 job openings expected over the projection period 1992-2001, with 180 of them resulting from attrition among existing personnel.

Main Industries of Employment:

Hospitals	93%
Manufacturing	5%
Other Health Care	2%

Estimated Job Openings in B.C. 1992-2001

Growth (Net)	Attrition	Total
200	180	380

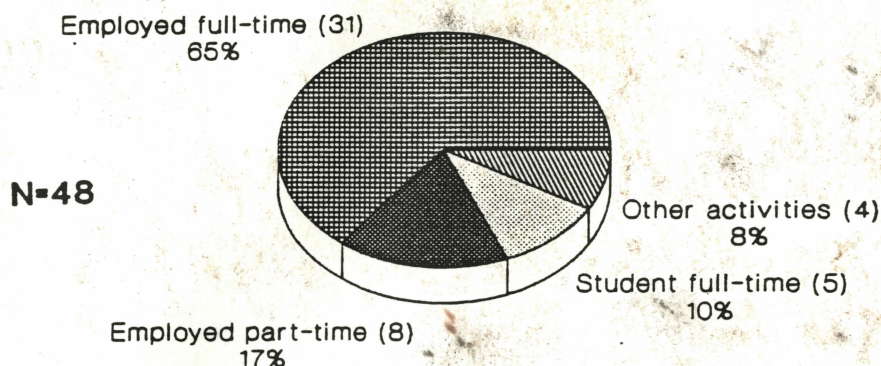
Further Education Opportunities:

Post Diploma Programs:

- 1) Anaesthesia Technology: pre-requisites are a diploma in Respiratory Therapy. The program is a distance study format with a 12-16 week clinical portion.
- 2) Cardiovascular Perfusion: the pre-requisites are a diploma in an Allied Health profession (RRT, RN) or a B.Sc. The program is a distance study format with a 48 week clinical portion.
- 3) B.C.I.T. offers a one year Cardiology Technology program.

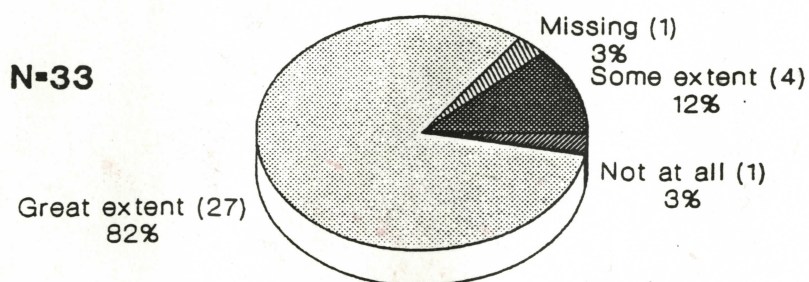
Employment Rates of Former Students:

Of 48 former student respondents (1987-92), 31 (65%) reported being in full-time employment; 8 (17%) reported being employed part-time, 5 (10%) reported being full-time students and 4 (8%) reported being involved in other activities.



Relationship of Training to Employment

Of the 48 former student respondents, 33 graduated from the Respiratory Therapy Program. Of these 33 respondents, 27 (82%) reported that their job was in the area for which they had been trained; 4 (12%) indicated that their employment was to some extent related to their training; 1 (3%) stated that the work was not related at all to the training at UCC, and 1 (3%) did not respond.

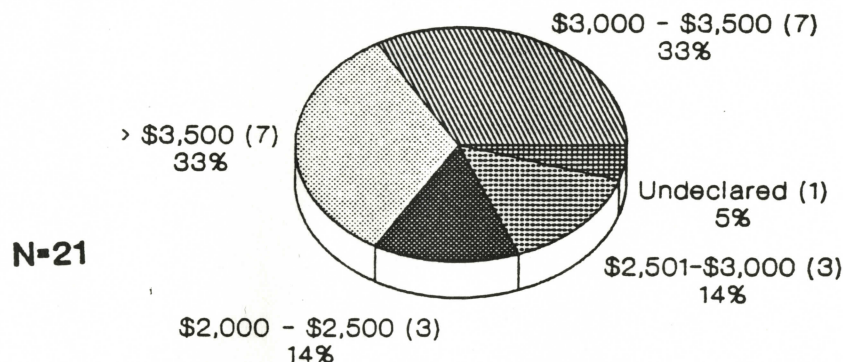


Current Salaries:

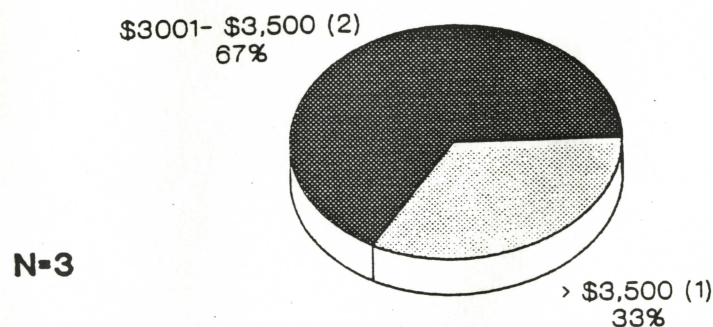
Of 21 former student respondents who are employed full-time and whose jobs are related to their training to a great extent, 3 (14%) were earning between \$2,001-\$2,500/month, 3 (14%) were earning between \$2,501-\$3,000/month, 7 (33%) were earning between \$3,001-\$3,500/month, 7 (33%) were earning over \$3,500 and 1 (5%) did not declare his income.

Of 3 former students who are employed full-time and whose jobs are related to their training to some extent, 2 (67%) were earning \$3,001-\$3,500 and 1 (33%) was earning over \$3,500.

Former Students Employed Full-time Jobs Related to Training--Great Extent



Former Students Employed Full-time Jobs Related to Training--Some Extent



According to Job Futures: British Columbia: Occupational Outlooks, (Statistics Canada, 1993), the estimated average earnings for all B.C. workers in this job group was about \$31,100/yr. in 1992. Approximately 79% are employed full-time, full-year and these workers' earnings averaged \$35,000.

STRENGTHS OF THE PROGRAM

The Evaluation Committee identified the following strengths in the Respiratory Therapy Program:

1. Proactivity and Flexibility:

The program faculty are proactive and have demonstrated a willingness to change. The fact that the Respiratory Therapy Department requested this evaluation in order to address areas of concern such as the attrition rate indicates a commitment to the renewal of course and program objectives.

2. Instruction:

There is a perception of high quality of instruction by both employers and the Advisory Committee.

3. Employability:

There is very little unemployment for graduates of the Respiratory Therapy Program. Historically, the program has a good record in placing graduates, even though current trends indicate that employment opportunities have begun to level off. The profession appears to be going through a period of transition and adjustment in which casual and part-time positions are more plentiful than permanent positions.

4. Reputation of Program:

The Respiratory Therapy Program at UCC has a high national reputation. Its graduates rank consistently within the top three institutions in Canada on the Canadian Society for Respiratory Therapist National Certification Examinations. The truly national reputation of the program is reflected in the widely different demographic and geographic backgrounds of its students.

5. Faculty Profile:

The Respiratory Therapy Program faculty have a high profile among their colleagues. They are considered to be leaders in the field within the associations to which they belong.

6. Post Diploma Opportunities:

UCC offers post diploma opportunities in fields related to Respiratory Therapy, such as Anesthesia Technology and Cardiovascular Perfusion. Moreover, with "cross-trained", and "multi-skilled" graduates in high demand by health services, the program has a great opportunity for expansion to degree level.

7. Rapport with Hospitals:

The Respiratory Therapy Program has developed a good rapport with the hospitals. The program continues to provide students with opportunities to hear from experts and practising professionals in the field.

AREAS WHICH CAN BE IMPROVED
(WITH RECOMMENDATIONS)

The Evaluation Committee identified the following aspects of the Respiratory Therapy Program as being in need of improvement. Recommendations are prioritized.

1. Reduction of Intake:

The Respiratory Therapy Program Evaluation Committee recommends that:

The Respiratory Therapy Faculty reduce its program intake from 60 to a maximum of 48 students--the level for which it is funded.

The rationale is as follows:

Job Market:

All of the constituencies surveyed indicated that the job market for Respiratory Therapists has reached a plateau. While until recent years, demand has always exceeded supply, in the last two years there has been a shrinking in the number of full-time Respiratory Therapy positions and indications the market has reached saturation. Although part-time and casual employment is still available in this sector, most recent graduates feel there is a glut of Respiratory Therapists.

Equipment Constraints:

Program intakes of 60 students per annum since 1990 have put excessive demands on program equipment. Interviewees expressed great concern about the limited access to program equipment and claimed that this detracted from their learning.

High Student:Instructor Ratios:

Having to supervise 60 instead of 48 students has spread faculty thin and, conversely, has made one-on-one access to faculty by students more difficult.

Clinical Placements:

While recent practice has been to admit 60 students to the Respiratory Therapy Program, only 51 clinical placements are available for third year students. It is, in the Committee's opinion, unconscionable that students entering the program should be faced with the uncomfortable impression that nine of them will be gone before even reaching their clinical year.

Funding:

With intakes of 60 since 1990, the program's utilization rate has been running between 108% and 115% for the last four years. This kind of over-efficiency may ultimately be counter-productive, and it makes sense for the program to revert to intakes of 48 for which it is funded.

2. Reduction of Student Instructional Workload:

It was clear from student respondents and student and faculty interviews that the workload for students in the program is excessive. This has resulted in exacerbated stress levels for both students and faculty. Decreasing the workload would assist not only in reducing these stress levels, but also in mitigating the attrition rate.

The Respiratory Therapy Program Review Committee accordingly recommends that:

- a. The Respiratory Therapy faculty aim at cutting the first and second year student instructional loads by five hours or 15% per week in both Respiratory Therapy courses and service courses.**

At the same time, there was consensus among current and former student interviewees that more clinical time would be desirable at first and second year level.

The Respiratory Therapy Program Review Committee accordingly recommends that:

- b. The Respiratory Therapy Faculty explore with their hospital partners ways and means of creating more clinical exposure for their first year students, perhaps between May and August at the end of the first year.**

3. Attrition:

In sifting through survey and interviewee comments, the Committee detected what may best be described as a "climate of frenzy" among Respiratory Therapy students. Overcrowded intakes, heavy workload levels, and a rigorous promotion standard have contributed to this atmosphere. It has not helped that the Respiratory Therapy faculty has created a negative environment during first-week orientation sessions by stressing high failure rates and difficult program content. This negativity may be counter-productive.

The Respiratory Therapy Program Review Committee accordingly recommends that the following measures be taken to address attrition:

- a. That the Respiratory Therapy faculty modify the instructional workload as in 2.a. above;**
- b. That the Respiratory Therapy faculty reduce the program intake, as in 1. above.**
- c. That the Academic Co-ordinator, Respiratory Therapy, ensure that entering students are made fully aware of the rigours and demands of the Respiratory Therapy Program, not only by the provision of more extensive program admission materials, but by the provision of orientation interviews, held before the start of the program, which would enable students to grasp more fully the nature of the program, and, if necessary, voluntarily deselect themselves.**
- d. That the Respiratory Therapy faculty continue to explore testing mechanisms such as the Allied Health Occupational Test and the Motivational Exam Test to determine the best predictors of success in the program.**
- e. That the Respiratory Therapy faculty rigorously apply its current admission standards, and not, as has been the case in the past, admit students who have not satisfied academic pre-requisites.**

AREAS WHICH CAN BE IMPROVED (WITH RECOMMENDATIONS) (cont.)

4. Departmental Policies and Practices:

While there were many positive comments about the Respiratory Therapy Program and its instructors, departmental policies have been perceived by some as "draconian" and paternalistic and some instructors unapproachable on a one-to-one basis. In particular, it is the Committee's view that the promotional policies based on achievement of a 60% mark in the final exam and the overall course, and insistence that one failure compel a student to repeat a full year have exacerbated student-faculty relations in the department. The Committee notes that these two policies have recently been rescinded by the department and replaced by more reasonable approaches; it congratulates the department on these changes, and further recommends that:

- a. **The Respiratory Therapy Department revise its policy of adjusting grades downwards when a student scores less than 60% on a final course exam;**
- b. **The Respiratory Therapy Department adopt the promotional standard of a pass (50% or better) on the final exam and 60% overall on the course as acceptable;**
- c. **The Respiratory Therapy Department continue its recently adopted policy of having students who fail a course repeat only that course and not the whole year.**

The Committee also makes the following recommendations:

- d. **Noting that there has been an over-reliance on multiple choice testing, the Committee recommends that the Respiratory Therapy Department review its evaluation practices and consider the benefits of other assessment techniques.**
- e. **That the Respiratory Therapy Department as a whole hold a policy review session to ensure that there is consensual interpretation and hopefully standard application of all departmental policies.**
- f. **That the Academic Co-ordinator, Respiratory Therapy, ensure that the UCC appeal process is explained clearly to each intake of students at an appropriate point in the year, as many of them are not aware of their rights in this regard.**

5. Curriculum:

While the program curriculum is essentially that of the Canadian Society of Registered Therapists, with some "enrichment" courses added, this in itself raises the question of whether the Respiratory Therapy Program's objectives should be solely to prepare its students for the National Examination, or to educate them beyond that point. Focus on the CSRT objective has, in the Committee's perception, caused too much emphasis to be placed on rote learning and memorization of detail.

Accordingly, the Committee recommends that:

- a. **The Respiratory Therapy faculty de-emphasize factual memorization and rote learning and place more emphasis on conceptual learning and higher level problem-solving activities in its delivery of the curriculum.**

AREAS WHICH CAN BE IMPROVED (WITH RECOMMENDATIONS) (cont.)

5. Curriculum (cont.):

As to the curriculum itself, many survey responses suggested the need for more emphasis in two areas: interpersonal communication skills, and home and community care expertise. To address the first need, the Committee recommends that:

- b. The English instructors teaching English 157/167 adapt these courses to incorporate more emphasis on interpersonal and workplace communication skills.**

(The need for a home/community care skills will be dealt with later in this section.)

Although there were some complaints from first and second year students about the relevance of the Statistics course, third year and former students commented on the benefits of this course.

The Committee therefore recommends that:

- c. The Respiratory Therapy Statistics course be retained.**

Some comments were recorded about the relevance of much of the Chemistry course and the pace of delivery of the Biology course.

The Committee accordingly recommends that:

- d. The Academic Co-ordinator, Respiratory Therapy, request that the Chemistry and Biology instructors revisit their course objectives with a view to justifying their curricula, and consider alternative delivery methods to accommodate a variety of learning styles and learning paces.**

Current students and graduates commented on the excessive volume of material covered in the Mechanical Ventilation course.

The Committee accordingly recommends that:

- e. The Mechanical Ventilation course instructor make a concerted effort to weed out old material and deadwood and review examination methods in the course.**

Seven first year students, 16 (out of 34) second year students, and 9 former students commented negatively on various aspects of the Sociology course, including its delivery style and relevance.

The Committee accordingly recommends that:

- f.i. The Respiratory Therapy faculty and the Sociology instructor meet to determine the ways Medical Sociology should meet the needs of Respiratory Therapy students;**
- f.ii. The Sociology instructor review materials, examples, delivery procedures and evaluation methods in Sociology 226. Student feedback via course evaluations should form part of this review process;**

AREAS WHICH CAN BE IMPROVED (WITH RECOMMENDATIONS (cont.)

5. Curriculum (cont.):

- f.iii. The Respiratory Therapy faculty explore alternative courses to Medical Sociology, such as Philosophy 433 (Bio-Medical Ethics), and possibly courses in Psychology and Community Health Care with a view to creating a range of electives for Respiratory Therapy students.**

Finally, all evidence indicates that as the health care system changes, the role of the Respiratory Therapist is evolving and the profession expanding into other related fields. The key concepts here are "cross-training" and "multi-skilling". Responses from former and current students indicate high levels of interest in this kind of training, which might be incorporated into a Bachelor of Health Science degree: former students (50% interest); clinical students (86% interest); 2nd year students (70% interest); and first year students (55%).

The Committee accordingly recommends that:

- g. In preparation for the program's expansion to degree level, and in response to the changing needs of the health system, Respiratory Therapy faculty consciously incorporate and promote "cross-training" and "multi-skilling" in the current program.**

6. Pedagogy and Currency:

Critical comments on shortcomings in the delivery methods of several members of the Respiratory Therapy faculty were made by former and current students. Though there are signs that these are changing, the Committee has already noted the department's tendency to favour the traditional lecture method and factual memorization.

The Committee endorses these changes and further recommends that:

- a. The Respiratory Therapy Department be more adventuresome in exploring a variety of pedagogical styles to enhance learning.**

While the Committee is satisfied that Respiratory Therapy faculty are maintaining their professional currency through regular hospital visitations, it is important that they not only *be current*, but *be perceived* to be current in their field.

The Committee accordingly recommends that:

- b. Respiratory Therapy Program faculty engage in formal and regular visitations to hospital clinical Respiratory Therapy Departments to maintain their professional currency.**

7. Advisory Committee:

It was clear from the Advisory Committee and faculty surveys that the Respiratory Therapy Advisory Committee is not as active as it might be. Concerns were expressed about composition (medical directors vs. Respiratory Therapy practitioners), function (unfamiliarity with its terms of reference), and infrequency of meetings and irregularity of attendance by some of its members.

AREAS WHICH CAN BE IMPROVED (WITH RECOMMENDATIONS (cont.)

7. Advisory Committee (cont.):

The Committee accordingly recommends that:

- a. **The Dean, Sciences and Health Sciences, ensure that the composition of the Respiratory Therapy Program Advisory Committee include more practising/bedside Respiratory Therapists and regular student participation;**
- b. **The Dean, Sciences and Health Sciences, ensure that a more frequent rotation of Respiratory Therapy Advisory Committee members occur in order to promote fresh perspectives;**
- c. **The Chairperson, Allied Health Sciences, or the Dean, Sciences and Health Sciences, ensure that Respiratory Therapy Program Advisory Committee members are familiarized with UCC Policy R-2013, which outlines Program Advisory Committee terms of reference and objectives, and explain this policy to them in detail.**
- d. **The Chairperson, Allied Health Sciences, ensure that there be one major meeting a year of the Respiratory Therapy Program Advisory Committee, and that additional meetings, as necessary be conducted by electronic means (tele-conferencing).**

8. Other:

Registrar's Office:

Several comments were made by students (past and present) concerning the indifference shown towards them by some members of the Admission's Department staff.

The Committee accordingly recommends that:

- a. **The Registrar encourage his staff to provide greater levels of service to students.**

Library:

While students enjoyed the learning atmosphere provided by the Library and its staff, it was felt by many that Library operating hours should be increased, particularly on Friday evenings and weekends. The Respiratory Therapy Program Evaluation Committee reviewed Library hours of operation and found them to be adequate.

The Committee accordingly recommends that:

- b. **The Director, Learning Resources, strive to maintain hours of Library operation, particularly weekend access, at current levels.**

AREAS WHICH CAN BE IMPROVED (WITH RECOMMENDATIONS) (cont.)

Bookstore:

Bookstore prices were criticized as being overly expensive, with many students citing other institutions such as UBC, the University of Alberta, and SAIT, as selling the same Respiratory Therapy texts for less.

The Committee accordingly recommends that:

- c. The Bookstore Manager research the relevant costs of supplies and texts in order to disclaim these comments.

- 2) Descriptive Data on the Respiratory Therapy Program's history, definition, objectives, budget, etc. were solicited from Larry Ford, Chairperson, Allied Health Programs, and Linda Ford, Assistant Coordinator, Respiratory Therapy, via the standard "Data" form used from Dean/Chairperson, Faculty of Health Sciences, along with copies of relevant documents.
- 3) Statistical data on a level (ITE, enrollment, graduation rates, and grade point averages) were provided by the Office of Institutional Research.
- 4) Consultation took place with the Respiratory Therapy program faculty on the design of the questionnaire.
- 5) The following people associated with the program were interviewed:
Doug Balesita, Instructor, Physics;
David MacLennan, Instructor, Sociology;
Les Matthews, Instructor, Respiratory Therapy;
Glen Stockton (1st yr. Respiratory Therapy student), Paul Hryciuk and Dexter Forcier (2nd yr. Respiratory Therapy students), Stephen McKinnon (3rd yr. Respiratory Therapy student),
Lucy Lindros (4th yr. Respiratory Therapy student, presently employed at Royal Inland Hospital).
- 6) Heather Noyes and Katrina Chan, Laboratory Coordinators, Respiratory Therapy, were present during the last day of the consultation meetings.

APPENDIX A

METHODOLOGY

The data were collected in the following ways:

- 1) Standard questionnaires were administered to Respiratory Therapy former students, employers, faculty, current students and Advisory Committee members. All data were processed with an SPSSX software program to achieve rating distributions and mean scores for each item. Verbal comments for each group were recorded separately and anonymously.
- 2) "Descriptive Data" on the Respiratory Therapy Program's history, description, objectives, budget, etc. were solicited from Larry Prins, Chairperson, Allied Health Programs, and Linda Funk, Academic Coordinator, Respiratory Therapy, via the standard "Data Required from Dean/Chairperson/ Program Coordinator" form, along with course outlines.
- 3) Statistical data on annual FTE, attrition rates, graduation rates, and grade distribution were provided by the Office of Institutional Research.
- 4) Consultation took place with the Respiratory Therapy Program faculty on the design of the questionnaires.
- 5) The following people associated with the program were interviewed:

Doug Baleshta, Instructor, Physics;
David MacLennan, Instructor, Sociology;
Les Matthews, Instructor, Respiratory Therapy;
Dan Stockton (1st yr. Respiratory Therapy student); Ron Regier and Dexter Forbes (2nd yr. Respiratory Therapy students); Myles McKinnon (3rd yr. Respiratory Therapy student);
Lucy Lindros (former Respiratory Therapy student, currently employed at Royal Inland Hospital).
- 6) Heather Noyes and Janine Chan, Laboratory Demonstrators, Respiratory Therapy, were present throughout the first day of the Committee meetings.

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