



Ministry
of
Education

Authorized by the
Minister of Education
The Hon. Bette Stephenson, M.D.

CURRICULUM GUIDELINE FOR THE

Intermediate and Senior Divisions

ACCOUNTANCY

OHWZ

373.1909713

059DE/c-C9-12

1978



Acknowledgements

The Ministry of Education wishes to acknowledge the contributions of the following persons and organizations who participated in the development of the Intermediate and Senior Division accountancy guideline.

T. H. BAKER Co-ordinator, Business Education, Scarborough Board of Education

JOSEPH BRISBOIS Head, Business Education Department, Cardinal Newman High School, Metropolitan Separate School Board

ROBERT CERUTTI Teacher, St. Patrick Intermediate School, Lakehead District Roman Catholic Separate School Board

DONALD J. CIOTTI Assistant Head, Business Education Department, North Park Collegiate and Vocational School, Brant County Board of Education

VICTOR L. D'AMICO Head, Accounting Department, High School of Commerce, Ottawa Board of Education

GUY DROLET Program Consultant, Ottawa Board of Education

LOUISE FLEMING Education Officer, Curriculum Branch, Ministry of Education, Ontario

ROBERT D. HARKNESS Subject Supervisor, Hamilton Board of Education

GEORGE ISFORD Education Officer, Curriculum Branch, Ministry of Education, Ontario

TREVOR JONES Assistant Head, Business Education Department, Westmount Secondary School, Hamilton Board of Education

H. J. KALUZA Co-ordinator, Business and Computer Studies Department, the University of Western Ontario

BRYAN MOONEY Chairman, Business Education Department, Hamilton Collegiate Institute, Hamilton Board of Education

SOCIETY OF MANAGEMENT ACCOUNTANTS OF ONTARIO Research Department, Toronto

SPECIALIST GROUP IN ACCOUNTING, 1978 Althouse College, London, Ontario

G. E. SYME Teacher, Eastview Secondary School, Simcoe County Board of Education

THOMAS D. WARDLAW Commercial Director, Waterford District High School, Norfolk County Board of Education

PATRICIA A. WARWICK Education Officer, Correspondence Education Branch, Ministry of Education, Ontario

CLARENCE WEBB Commercial Director, Walkerton District Secondary School, Bruce County Board of Education

BOB WILLIAMS Co-ordinator, Business Education, Halton County Board of Education

CONTENTS

	SECTION A
2	INTRODUCTION
4	RATIONALE
5	AIMS AND OBJECTIVES
	SECTION B
9	THE LEARNER AND THE PROGRAM
9	ACCOUNTING PRINCIPLES I
14	ACCOUNTING PRINCIPLES II
17	APPLICATIONS OF ACCOUNTING
22	ACCOUNTING, HONOUR GRADUATION
	SECTION C
27	TEACHING SUGGESTIONS
	SECTION D
32	EVALUATION
	SECTION E
38	SELECTED BIBLIOGRAPHY

SECTION A

INTRODUCTION

The pattern of accounting programs in Ontario has undergone a number of changes since *Introduction to Accounting* was authorized in 1970. Since then, the subject of accounting has become more widely available to students; it can now be taken either as a single course or as a program, depending on the interest, aptitudes, and needs of individual students. In addition, a number of schools have introduced innovative courses in applied accounting, the success of which has led to the acceptance of accounting applications in many accounting programs.

This curriculum guideline replaces *Introduction to Accounting, Senior Division, 1970* and the Senior Division course guidelines designated as Book-keeping, Accountancy, and Accountancy Practice in *Curriculum RP 31 (Commercial Subjects)*.

This guideline authorizes four credit courses in accounting: Accounting Principles I; Accounting Principles II; Applications of Accounting; and Accounting, Honour Graduation. These courses are outlined in the following diagram.

It is recommended that only those students who have successfully mastered the core objectives outlined in Accounting Principles I be enrolled in Accounting Principles II or in Applications of Accounting.

Accounting Principles I, as the basis for general- or advanced-level courses, may be offered either in the Intermediate or the Senior Division. Where this course is introduced in the Intermediate Division, it is recommended that it begin in Grade 10. Students taking Accounting Principles I may earn up to one credit.

The core of the accounting program is outlined in the program for Accounting Principles I. The depth to which this core is developed by the teacher will depend on the level at which the course is offered. After completing this core, students will have the necessary background for further study in accounting; those who do not undertake further study will be able to apply this knowledge in many real-life situations. Optional topics are suggested and may be expanded or modified by the teacher to meet the needs of the students.

Accounting Principles II is designed as a continuation of the theory developed in Accounting Principles I. It should be offered in the Senior Division at the advanced level only. Students taking Accounting Principles II may earn up to one credit.

Applications of Accounting is a general- or advanced-level course suitable either for Grade 11 or 12. The core content outlined for Accounting Principles I is the basis of courses in Applications of Accounting. Mastery of this material is essential for the study of any of the additional topics described in the content of Applications of Accounting. Whenever two or more of these additional topics are combined, they should be integrated as much as possible and should not be developed as separate and isolated segments of the course. The choice and details of the additional topics should be determined by the needs and abilities of the students, by the time available for the study, and, to some extent, by the availability of equipment. Students taking this course may earn up to one credit.

Students can earn a maximum of three credits towards a Secondary School Graduation Diploma from courses based on this accountancy guideline. Each of the following courses is restricted to one credit: Accounting Principles I, Accounting Principles II, Applications of Accounting. Additional credits may be earned through a co-operative work-experience program. The number of credits granted for this type of experience must conform to the policy set out in *The Co-operative Utilization of Community Resources for Diploma Credit Courses: A Supplement to H.S.1*.

Accounting, Honour Graduation, is the basis for a single-credit course in accounting at the Honour Graduation level. It may be offered to students who wish to continue an accounting program begun in earlier years or to students who are exploring the accounting field for the first time. Thus students may now take a course in accounting at the Honour Graduation level even if they have not taken a previous course in accounting. Whatever the case, the level of difficulty of an accounting course offered to Grade 13 students must be consistent with Honour Graduation standards.



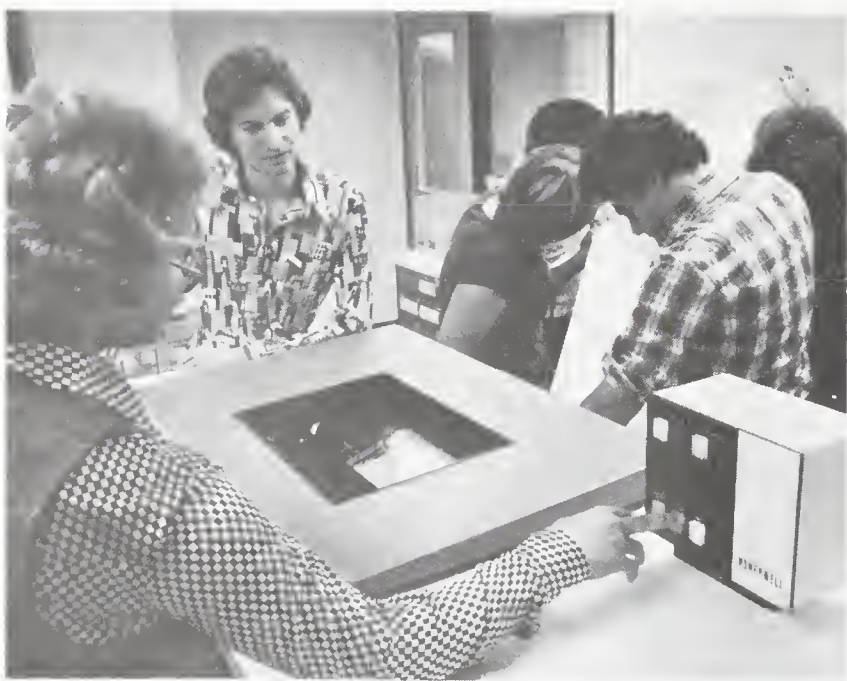
RATIONALE

The accounting program should stress understanding as well as the application of basic principles. Emphasis on an elementary interpretation of financial records can meet the diverse future needs of accounting students.

It is essential that students be made aware of the many ways in which the output of the accounting system may be utilized and of the significance of such data. Mastery of a certain amount of procedural work in accounting is essential, as is an understanding of the business forms that are the source of accounting data.

The traditional role of the bookkeeper has changed. The recording and analysing function previously performed by a bookkeeper has now been divided between two levels of responsibility: clerical workers are responsible for the routine work, and professional accountants take charge of supervision and the more advanced financial work.

Many secondary school graduates who enter the work force directly after graduation will be handling the various tasks involved in maintaining the accounting cycle. Although such clerical workers need to develop competence in specific recording procedures, they should also have a sound working knowledge of the principles involved. Other secondary school graduates will seek qualification as professional accountants after the completion of post-secondary school courses. These students will require a sound working knowledge of accounting principles.



Because the business affairs of all Canadians are affected by accelerated automation of accounting operations and increasing government regulations, the importance of financial records is evident. Not all students enrolled in an accounting course will enter the field of accounting, but all of them will have a lifelong contact with the business world and its records. Whether they will be owners of small businesses, professionals in other fields, investors, or workers, all will be taxpayers and consumers who will need to keep personal records and to understand business documents and reports. An understanding of payroll preparation, the interpretation of accounting data, the controlling of cash, and the securing of credit are only a few of the items of general knowledge to be considered. Thus some knowledge of business procedures is a useful part of the general education of all students. Since accounting is the language of business, it follows that accounting courses should provide students with a basis for a better understanding of the business world.

Computers are an important part of present-day accounting systems. The analysis and interpretation of the accounting records produced by automated equipment are becoming increasingly important to business. A knowledge of the relation between computers and accounting will help prepare students for today's business world.

The modern accounting teacher will benefit from a varied background in business, an understanding of up-to-date accounting procedures, a thorough knowledge of teaching principles, a willingness to adapt to changing conditions, and a sympathetic awareness of student needs and abilities. The study of accounting can stimulate intellectual curiosity, critical investigation, and open-minded inquiry, while at the same time imparting an understanding of basic accounting concepts. Teachers should not lose sight of these aspects of learning as they apply to the accounting classroom.

AIMS AND OBJECTIVES

All accounting courses developed from this guideline must incorporate the following eight aims and their related objectives. Teaching suggestions

for the implementation of these aims are given in a later section of this guideline.

1. All courses in accounting shall allow students to develop an understanding of the accounting terms, principles, systems, procedures, and applications encountered in personal and business affairs.

Since accounting is central to all business and economic activity, an accounting course must provide students with the knowledge and terminology that will allow them to participate in the business affairs of our society. As a subject, accounting has many strengths. It can be academically challenging in its own right and it can offer many practical benefits. For example, the study of accounting can help the individual maintain accurate personal banking records; also, it can lead to a career in one of our most respected professions.

It follows, then, that all courses in accounting should provide students with opportunities to:

- spell, define, and use commonly accepted accounting terminology;

- apply fundamental accounting principles in personal and business activities;
- understand simplified accounting systems;
- understand the impact of automated data processing on accounting systems;
- understand the procedures involved in generating simple financial statements;
- understand the procedures generally used for maintaining accurate records and books of account;
- keep accurate personal and club financial records.

2. All courses in accounting shall allow students to develop an understanding of the uses and significance of accounting information and reports.

There is little value in having students manipulate data without giving them a purpose for doing so. Too often accounting students are asked to prepare financial statements repetitively without being asked to arrive at any conclusions. Few figures in a financial statement are significant in themselves; it is their relationship to other quantities or the amount and direction of change that is important. Thus the value and use of the accounting effort is lost on the student if no significance is attached to financial statements.

The development of decision-making skills is an important part of the curriculum. Students are practising a skill that will have lifelong value when they are making decisions based on the interpretation of financial statements and their understanding of the inner workings of the accounting system.

The financial affairs of a business are of interest to management, creditors, investors, and other groups. Since each of these groups has somewhat different needs, a variety of methods (graphs, charts, oral and written reports, and so on) are required to communicate financial information and related decisions. Emphasis should be placed on the functional use of financial statements, as well as on the technical requirements of their preparation.

For these reasons, all courses in accounting should provide students with opportunities to:

- interpret basic financial information;
- make predictions and decisions based on simplified data relevant to their experience;
- use a variety of graphs, charts, and diagrams to present financial information.

3. All courses in accounting shall make students aware of careers and of the possibilities for further study in accounting and related fields.

An exploration of a variety of jobs and careers will help students to make suitable career choices. Each of the many jobs available in accounting and in related fields requires employees with specific educational preparation and personal qualities. A knowledge of the requirements of the different positions available and of the educational opportunities in accounting at the secondary and post-secondary levels will allow students to make informed decisions and to plan the correct route to their chosen career.

For this reason, it is essential that students:

- have accurate information on the type of careers available;
- be aware of the types of educational programs available and of their entry requirements.

4. All courses in accounting shall give students opportunities to develop communication skills in an accounting context.

Accounting students must be able to analyse what they read, to prepare and present written material in a logical and organized manner, and to communicate their viewpoints clearly in an oral form.

Thus all accounting programs should provide students with opportunities to:

- develop the ability to read with understanding;
- improve their ability to organize and prepare written material;
- develop the ability to communicate orally.

CHARTERED ACCOUNTANT
Our client is a fast growing firm of Chartered Accountants in Southern British Columbia who seeks a C.A. graduate to manage a group of client accounts and provide direction to junior staff. Candidates should aspire to a partnership in a growing firm and thrive on direct client contact.
A graduate with 1 or more years of post qualification experience will find the position challenging and stimulating. The firm offers an excellent package of salary and benefits together with a much better than usual opportunity for partnership.
Please reply in complete confidence to W. K. McIntyre, C.A. and quote File 452.
MCINTYRE, BOWMAN & ASSOC.
85 BLOOR ST. EAST
SUITE 100
TORONTO, ONTARIO
M4W 1A9
PHONE: (416) 961-7105

Assistant to Plant Manager
\$16,000 to \$18,000 Yearly
A leader in its field is currently seeking an ambitious individual. This is strictly a day shift position with generous company benefits. If you have supervisory experience in assembly, process, or primary manufacturing, please call today for confidential interview.
364-9997
7041 HWY 7, SUITE 101, EAST BRIMLEY RD., TORONTO, ONT. M3C 2B6

ACCOUNTANT
REQUIRED for growing manufacturing in Scarborough to take charge of administration. Experience with costing and small computers an advantage. Salary \$16,000 to \$18,000. Submit resume to:
ANDREW WHAYOS AND ASSOCIATES INC.
111 Richmond St. W. Suite 1200
Toronto, Ont. M5H 2J4
Attention: Mr. Shields
ACCOUNTANT full time, for downtown hotel. Box 1605, The Globe
Accounting Machine Operator
PHILIPS 350 or similar models for payroll and A.R. Also
Bookkeeper
well established group of companies. Apply with detailed resume and expected to:
BOX 1932, THE GLOBE

CHIEF ACCOUNTANT
REQUIRED by safety products manufacturing and distribution company in Rexdale. Reporting to the controller, individual must be familiar in C.G.A. R.I.A., experienced in General Accounting, knowledgeable in costing and inventory control, supervise staff of 6. Salary commensurate with experience. Excellent benefits, including dental plan. Apply in writing only with detailed resume to:
The Controller
NORTON SAFETY PRODUCTS LTD.
37 Racine Rd.,
Rexdale, Ont. M9W 2Z4

ACCOUNTING SUPERVISOR
The successful candidate will report to the Chief Accountant, be qualified to supervise a staff of 4, have several years' accounting office experience, preferably including the implementation of a computerized accounting system. Must be currently enrolled in a professional accounting course. Please send resume in confidence to:
MS. N. PROSSER
MCMASTER UNIVERSITY
MEDICAL CENTRE
1700 MAIN ST. W.
HAMILTON, ONT. L8S 4J9

FINANCIAL - ACCOUNTING
ACCOUNTING MANAGER
Excellent opportunity for a 4th-5th yr. RIA or CGA (or recent prod) to responsibilities, embrace credit approval & collection. Position promotes to Controller within one year.
\$16-20,000
CREDIT MANAGER
A established Lending Co. has an immediate opening for an experienced credit manager. Responsibilities embrace credit approval & collection. Position promotes to Controller within one year.
\$16-19,000
FINANCIAL ANALYST
Short term appointment as financial analyst with responsibility for budgeting, planning & analysis. Long term understanding the Controller with full financial responsibility. RIA or CGA grad required.
\$19-21,000
ACCOUNTANT - OFFICE MANAGER
Experienced manager required to supervise all accounting & office functions with a prestige downtown CO. Supervisory experience in a mini-computer environment req'd. Good scope for advancement.
\$15-18,000
SYSTEMS - EDP
SOFTWARE SPECIALISTS
Several experienced professionals required with good Assembly knowledge & responsibilities embrace Operating Systems, Data Base management systems applications evaluation & recommendations.
\$16-19,000
PROGRAMMER ANALYST
Experienced programmer analyst with COBOL (DOS VS or OS) background. Interfacing new applications are planned. Accounting, Statistical and Manufacturing systems. CICS knowledge an asset.
\$12-18,000
RPG II PROGRAMMERS
Several interesting positions are currently available for experienced programmers for system 3 and Accounting.
Manufacturing, Distribution and Accounting.
TO EXPLORE THESE AND OTHER POSITIONS CALL 922-6748
ROBERT HALF PERSONNEL AGENCIES
FINANCIAL & EDP PERSONNEL PLACEMENT SPECIALISTS
250 BLOOR ST. E., TORONTO, ONT. M4W 1E8 922-6748
Offices: Toronto, Calgary, Edmonton, Vancouver, London, England & USA

GENERAL ACCOUNTANT
Reporting directly to the controller of an aggressive manufacturing firm, the successful candidate will be responsible for the preparation and analysis of financial statements, profit and loss, and inventory control. This is a challenging position and will require a motivated individual with a strong background in accounting and a recognized professional designation.
364-9997
7041 HWY 7, SUITE 101, EAST BRIMLEY RD., TORONTO, ONT. M3C 2B6

Product Engineer
\$22,000
Environmental engineering, product and preventive maintenance programs are the challenges awaiting you in this progressive company.
56 Aberfoyle Cres., 2nd Floor
Tel. 239-4391

ACCOUNTS RECEIVABLE CLERK
Bilingual
Required by Colgate Palmolive Canada. Preferred applicant will have grade 13 education and at least 1 year's experience in Collection & Adjustment work.
The company offers an excellent starting salary with comprehensive fringe benefits.
Please call Mr. R. I. Smith
461-8234 local 395

PROJECT ENGINEER
\$20,000 Yearly
A leader in its field is seeking a professional engineer to head up all project engineering and capital expenditures along with all Plant facilities. The candidate should be able to communicate with all levels of management and take with all levels of management and be responsible enough to work completely on own.
364-9997
7041 HWY 7, SUITE 101, EAST BRIMLEY RD., TORONTO, ONT. M3C 2B6

Sales Order Desk
EXPERIENCED
\$13,500
INDUSTRIAL background. Anti Inflation Personnel.
239-3964
SALES professionals are available for positions in various industries. Call Montford MacIn. McIn. Brown, 961-7105
SENIOR MANAGEMENT positions for executives with electronics and related chemical background. Call John Morison, McIntyre Brown & Assoc., 961-7105

6040 Help Wanted
ACCOUNTANT OFFICE MANAGER
REQUIRED for growing manufacturing in Scarborough to take charge of administration. Experience with costing and small computers an advantage. Salary \$16,000 to \$18,000. Submit resume to:
ANDREW WHAYOS AND ASSOCIATES INC.
111 Richmond St. W. Suite 1200
Toronto, Ont. M5H 2J4
Attention: Mr. Shields
ACCOUNTANT full time, for downtown hotel. Box 1605, The Globe
Accounting Machine Operator
PHILIPS 350 or similar models for payroll and A.R. Also
Bookkeeper
well established group of companies. Apply with detailed resume and expected to:
BOX 1932, THE GLOBE

SECRETARY BOOKKEEPER
WE require an intelligent individual to perform secretarial, accounting and general office functions. Must possess strong secretarial skills and be capable of bookkeeping to trial balance. Costing and function independently are a continuing importance. We offer excellent salary and working conditions as well as the opportunity to become a key member of a small but growing team. Please apply in writing including experience to:
CANADA THERMOFILM LTD.
P.O. BOX 720
8241 KEELE ST.
CONCORD, ONT. L4K 1C7

SECRETARY BOOKKEEPER
A leading company has openings for experienced secretaries/bookkeepers with the Harbour Freight office is located at 1000 Sheppard Ave. E. Please send resume to Box 1509, The Globe.

Accountant
FULLY experienced for large organization. Financial statements and budget balance. Must be a 1st class accountant. Many benefits. Call Mrs. Vieni 562-7000.

ACCOUNTING
AUDIT MGR. TO JOE
Rapidly expanding natural resource firm requires C.A. - Alberta - min 4 yrs. post grad experience. Operational audits, min travel. Excellent career development. Paid relocation. Call Frank Peier.
TROUBLE SHOOTER 25K
Working with a close group of senior mgmt people you will oversee all the accounting functions. Good corporate visibility. Ideas Man. Location: S.W. Ontario. Call Mike Davis.
MGR OF CORP ACCT 75K
Accounting graduate for \$300 million manufacturing company. Divisional controllership position within 2-3 years. Call Brian Brown.
MGR OF CORP ACCT 25K
Multi-million sales organization - Can. owned - currently expanding their U.S. holdings. Offer position to RIA/CGA grad. Duties include consolidations and financial statements in corp. reports.
PROJECT ACCT 21.5K
Recent C.A. for natural resource firm, dynamic growth, travel position opened due to promotion. Staff position to time management. Call Rita Johnson.
COST ACCTG SUP 15-16K
3rd-5th R.I.A. who desires a good future in excellent environment. Supervise a standard cost reports, systems design, analysis. Interest challenge, potential all here. Call Dennis Wilson.
ACCOUNTANT 15-17K
Work on inventory control, investigations, classifications, cost at sales & merchandizing, custom payments all on computer. Location: London, Ontario. Prefer single, matured who can travel. Call Ed Mann.

JUNIOR ACCOUNTANT
OR the cash or 1st divisional controller, must be capable of maintaining cost records, and preparing financial statements.
495-6480 MS. McGOO

5. All courses in accounting shall give students opportunities to develop thinking skills in an accounting context.

With the great amount of data available in today's rapidly changing world, many of the facts and routines learned in the classroom will soon be forgotten, unnecessary, or obsolete. Furthermore, we have only a vague idea today of what responsibilities our students will have in their working lives. However, students who have learned to solve problems by using facts in a variety of ways will be in a good position to adapt to the needs of the future. Students must learn to think critically, to adapt to new situations, and to solve realistic

problems so that they will be prepared to function effectively in a world that may be very different from their classroom.

Students should be given opportunities to:

- develop the ability to think critically;
- arrive at decisions using reason and initiative;
- apply problem-solving models to relevant accounting situations.

6. All courses in accounting shall give students opportunities to develop work habits useful in later life.

Students must learn to plan and organize their time and materials efficiently so that they will be able to complete given tasks effectively. They should develop pride in their work, whether their work will be viewed by others or not. They should learn to function independently because they will one day be on their own. At the same time, they should also learn to relate to and to function with others, since this is a necessary skill for success in the business world.

Thus students should be given opportunities to:

- organize their time and materials in an effective manner;
- work effectively both independently and with others;
- accept increasing responsibility for their learning and actions.

7. All courses in accounting shall help students to develop a positive sense of self-worth and respect for others.

Individuals who have confidence in themselves and in their abilities are more likely to succeed than are individuals who lack that self-confidence. Improving one's skills and increasing one's competencies are in turn a source of satisfaction. Positive classroom experiences will enable students to develop self-confidence and to relate well to their classmates.

Students should be given opportunities to:

- derive satisfaction from improving the quality of their work;
- develop increased confidence in their ability to handle the subject in the course of the year;
- develop empathy for and satisfying relationships with others.

8. All courses in accounting shall make students aware of the role of values in making business decisions.

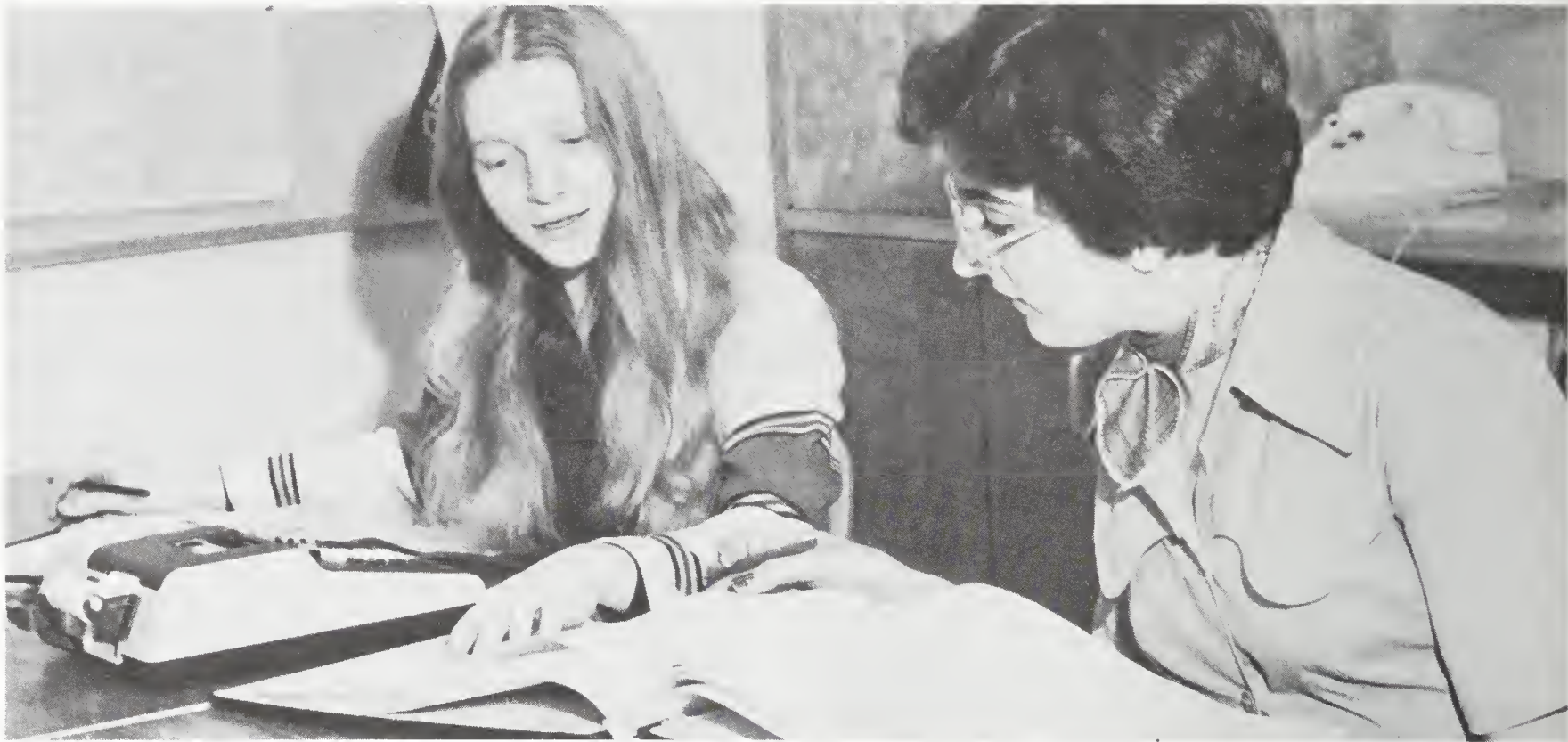
The process of solving business problems may involve conflicts of values. Students should be aware of the fact that arriving at a decision is difficult and that the decision itself is a reflection

of the values held by the owners and/or managers of the business. They should also realize that any one problem may have several different solutions, each having consequences for the business, its

employees, and society as a whole. Students should recognize that problems are often complex and that they often have important consequences for people. As well, they should understand the bases upon which they make decisions.

Thus the accounting program should provide students with opportunities to:

- identify the value issue and possible value conflict inherent in the business problems and decision-making;
- become increasingly aware of their own value systems.



SECTION B

THE LEARNER AND THE PROGRAM

This guideline is intended to provide the means by which school systems can meet the needs and interests of students in accounting courses. Students in the Senior Division and in the final year of the Intermediate Division may be given the opportunity to explore the general aspects of accounting, to develop skill in the practical applications of accounting principles, and to develop the ability to apply this knowledge in practical situations.

Each school system must select and organize the content of its own accounting programs, taking into consideration the requirements outlined in this guideline. In addition to the core requirements of each course, other knowledge, skills, and attitudes appropriate to students within a particular jurisdiction must be considered. It is also expected that the needs of students with differing

learning abilities and interests will be met either by some means of individualization, using different approaches to learning, or by courses at different levels of difficulty.

Students in the Senior Division should participate in the planning and organizing of activities related to their education in accounting. Such experiences will give them the opportunity to improve their working relationships with others, to develop communication skills, and to cultivate clear thinking.

The remaining parts of this section describe the required core content for each of the four accounting courses authorized by this guideline. In some cases, teaching suggestions and related optional topics are also given.

ACCOUNTING PRINCIPLES I

Introduction

Because students taking this course will have a wide range of experiences and motivation, it is necessary to provide a structure and content that will meet differing needs. Furthermore, because many students will take only one course in accounting, each course developed from this guideline must stand on its own merit and should not simply provide the background necessary for future study.

In developing this introductory course, teachers should remember that the intention is not to train secondary school students for jobs as bookkeeping clerks; such jobs are increasingly being done by automated accounting systems. Rather, the purpose of Accounting Principles I is to give students an understanding of the concepts of accounting. The relevant accounting principles will be related to both business and personal applications, since these courses are intended to provide students with experiences and knowledge that will be useful to them both in their personal lives and in their employment careers. While students should develop some skill in the application of accounting procedures in order to appreciate the importance of accurate records, it should be remembered that accounting procedures are a

means and not an end; they should not be overly stressed.

For many students this course will be an introduction to the world of business. By understanding the basic accounting functions performed in typical businesses, and the relationships between them, students will gain a better understanding of business in general.

Finally, it is important that all students who take this course be aware of the jobs and careers available in accounting and in related fields so that they will have the information necessary to make informed career decisions.

Nine topics of core content are identified. For each topic, core material and some related optional topics are given. All students who have successfully completed Accounting Principles I should understand the specified core content. This core content is not intended to limit the teacher; it is meant to ensure that all students taking the course have some uniformity in experience and learning. It is expected that local boards and individual teachers will add to the core any other objectives and topics that reflect local priorities and the needs of

ences leading to the achievement of the aims and objectives stated in this guideline.

Core Material

Optional Topics

The following are examples of optional topics which may be taught at this point:

- use the fundamental accounting equation;
- analyse common accounting transactions;
- apply the rules of debit and credit;
- describe the purposes of the general journal and the general ledger;
- use proper journalizing procedures;
- classify and number a group of accounts;
- use proper posting procedures;
- describe transactions from simple ledger entries.

- journalizing procedures for special journals
- a variety of posting methods

[illegible]

2. Source Documents

Core Material

The program shall provide opportunities for the student to:

- understand the need for source documents;
- identify common source documents;
- relate transactions to source documents.

Optional Topics

The following are examples of optional topics which may be taught at this point:

- analysis of source documents
- journalizing from source documents
- designing source documents
- use of source documents in journalless/ledgerless systems

3. Subsidiary Ledgers

Core Material

The program will provide opportunities for the student to:

- describe the purposes and advantages of subsidiary ledgers;
- set up and maintain at least one subsidiary ledger;
- understand the relationship of the subsidiary ledger to the control account;
- interpret a customer’s monthly statement.

Optional Topics

The following are examples of optional topics which may be taught at this point:

- the aging of accounts in the accounts receivable subsidiary ledger
- accounting for doubtful accounts
- additional subsidiary ledgers

4. Locating and Correcting Errors

Core Material

The program shall provide opportunities for the student to:

- use the proper technique for correcting errors;
- balance a trial balance by locating and correcting errors in the books of the account;
- balance a subsidiary ledger to a control account by locating and correcting errors.

Optional Topics

The following are examples of optional topics which may be taught at this point:

- errors not disclosed by the trial balance
- using journal entries to correct errors

5. The Balance Sheet and Income Statement

Core Material

The program shall provide opportunities for the student to:

- prepare basic statements for a service company from a trial balance;
- make simple interpretations and predictions based on financial statements;
- examine the financial statements of a public Canadian corporation.

Optional Topics

The following are examples of optional topics which may be taught at this point:

- the use of worksheets to prepare financial statements
- classified statements
- the graphing and charting of financial data
- the calculation of basic ratios
- the study of trading companies

6. Cash and Banking

Core Material

The program shall provide opportunities for the student to:

- describe depositing and chequing services provided by the banking system;
- prepare a simple bank reconciliation;
- maintain a petty cash fund.

Optional Topics

The following are examples of optional topics which may be taught at this point:

- cash receipts and cash payment journals
- internal cash control procedures
- the cash register
- accounting records for petty cash
- the banks' computerized accounting systems

7. Personal Accounting Applications

Core Material

The program shall provide opportunities for the student to:

- keep accurate consumer charge-account records;
- keep banking records for an individual.

Optional Topics

The following are examples of optional topics which may be taught at this point:

- income tax
- club records
- the introduction and comparison of various credit plans

8. Accounting Careers

Core Material

The program shall provide opportunities for the student to:

- describe the nature of common accounting jobs and their entry requirements;
- identify the basic requirements for professional accounting careers (C.A., C.G.A., R.I.A.);
- ascertain the availability of, and the requirements for, further secondary and post-secondary accounting programs.

Optional Topic

A comparison of accounting careers in business, industry, and government may be made at this point.

9. Accounting System

Core Material

The program shall provide opportunities for the student to:

- describe the sequence of tasks involved in one basic accounting system: for example, purchases, inventory, sales, and so on;
- describe the role of various individuals within an accounting system;
- describe the controlling aspects of accounting systems;
- describe the steps in a complete accounting cycle.

Optional Topics

The following are examples of optional topics which may be taught at this point:

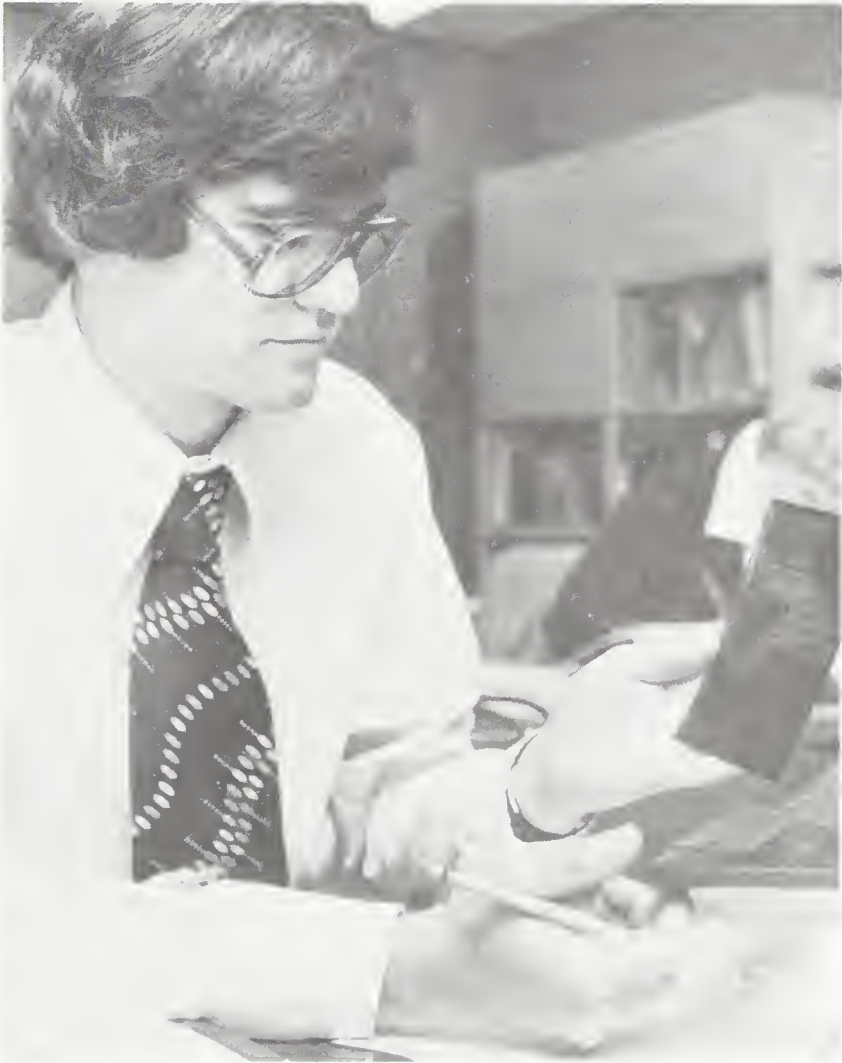
- other accounting systems — maintenance records for equipment, merchandise inventory, payroll, cash
- the use of flow-charting techniques in describing accounting systems

STUDENT SUBSTANCE INFORMATION SERVICE PAGE 1
BAILY TEST SCHOOL SCHOOL NUMBER: 000000
17 OCT 78 HOME ROOM #1 1008 NAMES CALMAN, BRENDA 9-967
STUDENT #1 900000002

CAREER INFORMATION

YOU HAVE INDICATED AN INTEREST IN ACCOUNTANT

ACCOUNTANTS
ACCOUNTANTS COMPILE AND ANALYZE BUSINESS RECORDS AND PREPARE FINANCIAL REPORTS, MAKE COST STUDIES, AND MAKE UP INCOME TAX RETURNS. PUBLIC ACCOUNTANTS CHARGE BUSINESS FIRMS A FEE FOR THEIR SERVICES. THEY MAY WORK INDEPENDENTLY OR FOR AN ACCOUNTANCY FIRM. INDUSTRIAL AND FINANCIAL ACCOUNTANTS ARE CONCERNED WITH THE BUSINESS RECORDS OF THEIR FIRM. THEY MAY SPECIALIZE IN A NUMBER OF AREAS -- AUDITING, ACCOUNTING, BUDGETING AND CONTROL, TAXES, OR SYSTEMS AND PROCEDURES. PUBLIC ACCOUNTANTS WHO SPECIALIZE IN AUDITING ANALYZE FINANCIAL RECORDS AND GIVE AN INDEPENDENT OPINION AS TO THEIR RELIABILITY TO SHAREHOLDERS, CREDITORS OR OTHER INTERESTED PERSONS. THEY MAY ALSO ADVISE THEIR CLIENTS ON TAX MATTERS INVOLVING INCOMES, ESTATES, PROPERTY, SALES, MINING, LOGGING, CAPITAL AND OTHERS. THE COMPLEXITY OF TAXING STATUTES REQUIRES SPECIAL HELP. PUBLIC ACCOUNTANTS



ACCOUNTING PRINCIPLES II

Introduction

For some students who have successfully completed Accounting Principles I, a subsequent course emphasizing the theoretical structure of accounting is appropriate. Accounting Principles II builds on the core topics of Accounting Principles I and is offered at the advanced level. This course is designed to be intellectually challenging and stresses such advanced thinking skills as problem-solving, analysis, and evaluation.

It is expected that students at this level will develop an in-depth understanding of the concepts and principles of accounting.

In developing a course from Accounting Principles II, teachers should examine the accounting

experiences encountered by students who have completed Accounting Principles I. Teachers should also be aware of the educational aspirations of their students; Accounting Principles II provides an excellent foundation for further study in accountancy.

The following topics comprise the recommended core for Accounting Principles II. It is expected that additional topics will be developed at the local level. Local courses of study will also include specific objectives that identify learning experiences leading to the achievement of the aims and objectives outlined in this guideline.

1. Accounting for a Trading Company

Core Material

Students shall be given opportunities to:

- differentiate between a trading company and a service company;
- understand the procedures involved in opening and maintaining new accounts, such as purchases accounts, and merchandise inventory peculiar to a trading company;

- journalize and post transactions for a trading company;
- prepare financial statements for a trading company.

2. Specialized Journals

Core Material

Students shall be given opportunities to use:

- multi-column cash receipts and cash payments;
- discounts in journals;
- special sales and purchases journals;
- sales tax in journals;
- synoptic journals.



3. Adjusting, Closing, and Reversing Entries

Core Material

Students shall be given opportunities to:

- make adjustments for depreciations, supplies, insurance, bad debts, and accounts payable (and inventory where applicable);
- prepare accruals, such as (a) interest revenue and (b) salaries and wages expense;
- prepare closing entries;
- prepare reversing entries;
- prepare worksheets.

4. Classified Statements and Their Analysis

Core Material

Students shall be given opportunities to:

- prepare classified income statements;
- prepare classified balance sheets;
- prepare equity statements;
- make use of comparative statements;
- calculate and interpret appropriate ratios.

Optional Topics

The following are examples of optional topics which may also be taught. In addition, teachers are encouraged to select other relevant topics.

- Payroll
- Accounting for partnerships and corporations
- Taxation
- Advanced accounting systems, such as voucher system, inventory control



APPLICATIONS OF ACCOUNTING

Introduction

Students who decide to take a second course in accounting may choose between Accounting Principles II or Applications of Accounting, depending on their interests. In either case, the second course will build on the accounting theory introduced in Accounting Principles I. Students who take Applications of Accounting without having previously taken an accounting course must master the core material outlined for Accounting Principles I.

A broad general aim of Applications of Accounting is to provide a realistic context in which to apply the basic theory introduced in Accounting Principles I. Because this program is based on experiences that are closely related to the accounting practices found in the business community, students will gain a broad functional knowledge of accounting techniques. Their potential for employment will increase as they develop competency in the use of these accounting techniques. The course content, learning materials, and teaching methodology should reflect the needs and practices of the local business community and the developmental needs of the individual student.

Courses developed from Applications of Accounting will be of benefit both to students who are interested in entering business occupations imme-

diately after graduation and to those who wish to continue their education after graduation. The required content of the course consists of the introductory accounting principles set out in the recommended core content for Accounting Principles I *and* one or more of the following units: applied accounting; accounting for small businesses; cost accounting; and computer-augmented accounting.

Teachers may develop a course from any one of these units or from several by making one unit the major topic of the course and integrating it with those parts of other units that are relevant. Thus a number of different courses may be developed. However, a student may earn no more than one credit from a course in Applications of Accounting.

Throughout the course, accounting principles should be reinforced through review and through the application of theory. Through the use of realistic business situations, the principles of accounting may be applied in different circumstances and in different ways. The core skills acquired in Accounting Principles I will assume new dimensions when students apply them to a variety of situations.

1. Applied Accounting

Introduction

Applied accounting emphasizes practical and realistic applications of accounting theory and can be of benefit to anyone. It meets the particular needs of students who plan to enter the world of business immediately upon graduation. After completing the unit, such students will be aware of the role that they can play in bookkeeping/accounting, since this unit deals with the variety of accounting systems employed by contemporary businesses. For students who wish to further their studies in accounting, applied accounting provides the opportunity to study, research, compare, evaluate, and report on systems of accounting used in the modern business world.

Suggested Content

The following topics form the basis of a unit in Applied Accounting. However, this list is neither all-inclusive nor restrictive: in some cases, teachers may feel the need to delete some topics; in others, they may wish to add topics of local significance. These additional topics may be derived from other units in Applications of Accounting, that is, cost accounting, accounting for small businesses, and computer-augmented accounting.

Accounts Payable. Purchase systems; purchase requisitions; purchase orders; purchase invoices; terms of sale; discounts; authorizing payments; matching process; payments; accounts payable

ledger; journal entries; trial balances; expense analysis; voucher method.

Accounts Receivable. Sales invoices; sales tax; credit invoices; cash receipts; posting to accounts; journalless posting; balancing the ledger; sales systems; statements of account; aging of accounts; cash discounts; sales analysis; month-end billing; cycle billing.

Cash Control. Handling cash receipts; handling cash payments; daily balancing and bank deposits; cashier's report; cash register audit strip; petty cash; cash short and over; bank reconciliation; cash receipts system; journal entries.

Inventory Control. Taking a physical inventory; perpetual inventory stock cards; shipping orders; goods received report; inventory reports; maximum and minimum quantities; reorder procedure; inventory system; inventory valuation.

Payroll. Compulsory payroll deductions; voluntary payroll deductions; deduction tables; remitting payroll deduction to governments; personal income tax.

Cost Accounting. Material; labour; overhead; methods of estimating overhead; job cost sheets; determining profit or loss by job; journal entries.

General Ledger. End of final period procedures; posting journal totals; adjustments; financial statements; closing the books.

Personal Income Tax. Income; deductions; exemptions; taxable income; provincial rebates; tax tables; U.I.C. tables; C.P.P. tables; U.I.C. overpayment; filing of a tax return for a sole proprietor.

Teaching Approaches

Accounting systems may vary considerably from company to company. It is therefore desirable for students to become familiar with as many accounting procedures as possible, that is, the manual system, the one-write system, and the computerized system. When selecting course content, it is essential that the accounting techniques commonly employed by local employers be surveyed. In addition, the teacher should take into consideration the availability of equipment, supplies, and learning materials before selecting the application and accounting techniques to be used.

To facilitate the selection of content, teachers may wish to prepare a matrix of applications and techniques. This will ensure that students obtain the maximum possible experience in applications and techniques, while recognizing the fact that individual differences do exist. It should be emphasized that while this course is easily adaptable to the unit approach (where one unit represents an accounting application), it is not necessary that all units be completed by all students.

Units may be oriented towards individual or group projects. The latter may include case studies, group projects, and research reports. The former may include the analysis, evaluation, and comparison of accounting techniques, as well as the development of a system where none existed before.

Structured traditional lessons may be the best approach for introducing units. However, students who are simultaneously engaged in different units of work require a classroom atmosphere that is both relaxed and purposeful and in which the teacher is sensitive to individual students' needs for guidance or assistance.

Finally, the classroom atmosphere should be such that it permits the teacher to stress acceptable work attitudes while allowing the student to interact socially and to develop habits and personality traits desirable in a business employee.

2. Accounting for Small Businesses

Introduction

When businesses fail they usually do so because their owners are not able to plan ahead to meet difficult financial situations. Keeping proper records can help to warn you in advance of such critical problems as a shortage of cash to pay your bills, a heavy inventory that is not moving — a profit margin that is continually low — and other dangerous conditions that occur as a result of management failure to plan and control. Records do not prevent these conditions from arising but keeping meaningful records and generating financial reports and analysis information may give warning in time to take corrective action.

—Royal Bank, *Your Business Matters*, No. 5.

This statement applies particularly to small business operations such as shops, garages, small factories, stores, restaurants, beauty parlours. Those students who are interested in operating a small business of their own should have an opportunity to learn and apply procedures that will assist them to operate successfully.

Suggested Content

The One-Book Accounting System:

- Combination or synoptic journal
- Daily cash balance check-sheet
- The income statement: sales, cost of goods sold, expenses, depreciation, income tax
- Balance sheet
- Ledger system: for accounts receivable (actual ledger cards or sales slips)
- Ledger system: for accounts payable (actual ledger cards or purchase invoices)
- Balance sheet

- Financial analysis: working capital ratios (current, quick)
- Productivity ratios: inventory turnover, collection period, operating expenses as percentage of sales
- Profitability ratios: gross margin as percentage of sales, net profit as percentage of sales, return on owner's investment

Teaching Approaches

Teachers may obtain prepared units from publishers on records for a small business to be used with the one-book system. Teachers may also prepare their own transactions on actual source documents to be used with this system. This will give students a realistic view of the system.

Teachers may wish to consider one small-business application in detail or to explore several different types of small-business applications. Students should be encouraged to evaluate and compare the effectiveness of various accounting systems.

Teachers can assist students to devise an efficient system of recording where none exists.

3. Cost Accounting

Introduction

One of the most common applications of accounting principles is the collection and analysis of data related to manufacturing. In our industrialized economy, there is an increasing emphasis on the planning and control of costs. As a result, many accountants employed in manufacturing enterprises are trained in cost accounting.

The study of cost accounting is particularly relevant for the industrial areas of the province. The principles and applications build naturally from the knowledge base developed in Accounting Principles I.

Suggested Content

- The relationship of the cost of goods sold to the cost of goods manufactured
- Inventory accounts: raw materials, work in process, finished goods
- The manufacturing statement
- Elements of cost: direct materials, direct labour, factory expenses
- Classification of elements of cost: direct and indirect, fixed and variable, actual and applied
- Job cost systems
- Process cost systems
- Cost behaviour analysis
- Cost-volume-profit analysis
- Cost budget-setting and control

Teaching Approaches

It is strongly suggested that students be encouraged to relate their own experiences to the course — time cards and products made in shops, visual arts, or family studies provide relevant examples. Field trips to local industries, housing developments, quarries, and land-development areas provide worth-while applications.

Many segments of the course can be enriched through the use of simulations and interdisciplinary co-operation among the departments in the school. A job cost study is a worth-while project that can be carried out in most technical areas, and similar studies can be completed in textiles and food preparation. The career emphasis of accounting courses at the secondary school level can be strengthened by having students conduct interviews and make reports on jobs available in the field of cost accounting.



4. Computer-augmented Accounting

Introduction

Computer-augmented accounting is an approach to the teaching of accounting which may be used in schools that have access to a computer facility.

It introduces the student to the processing capacity of the computer as it relates to accounting tasks. The student can call upon a number of stored computer programs for the purpose of performing routine accounting tasks such as journalizing, posting, and taking off a trial balance. The student is not required to be able to program the computer.

Computer-augmented accounting involves the use of the computer in conjunction with any contemporary textbook to reinforce the learning of accounting concepts and principles. A by-product of the course is an acquaintance with automated data processing concepts in general.

It is expected that the student will become an intelligent user of the computer. This method of teaching accounting places a natural emphasis on the use and significance of accounting data, thus diminishing the tedium of repetitive, non-learning tasks.

Suggested Content

Computer programs dealing with the following accounting functions are available in published form:

- balance sheet
- journalizing
- adjusting entries
- closing entries
- accounting for inventory
- simple interest
- compound interest
- inventory evaluation
- depreciation
- bank reconciliation
- payroll

The following more advanced applications are also available:

- managerial accounting
- inventory analysis
- financial statement analysis
- capital budgeting
- accounting decision-making

Teaching Approaches

Students should be encouraged to create data as input for the computer, using the variables in the computer program. It is stimulating for students to develop their own financial data and to analyse the results. In this regard, students may work independently or in teams of two or three. Working in teams allows students to evaluate each other's material and to present their data collectively.

The computer should not be introduced too rapidly into the accounting curriculum. Students must be given time to become familiar with the procedures and requirements of the computer facility.

Fast turn-around time is essential. The student will learn best when there is a quick response to his input. An ideal turn-around time is two hours or less. A turn-around time of more than one day is undesirable.

ACCOUNTING, HONOUR GRADUATION

Introduction

A number of experimental, non-prerequisite courses in accounting have been introduced successfully at the Honour Graduation level in recent years. One reason for this trend appears to be the increase in the number of Honour Graduation students who remain undecided about their future plans or who make the decision to continue their education beyond high school late in their secondary school career. An Honour Graduation-level accounting course can provide these students with a broad base of knowledge which would be helpful in any business or professional career.

Other students who choose to take Accounting, Honour Graduation, are continuing an accounting program begun in earlier years. Courses at this level must satisfy both the needs of these students and those of students who have no previous accounting experience.

The content of this course comprises the following three core topics and seven optional topics to be selected from the list of ten optional topics given below. Teachers should determine the depth of study of individual topics, their order of presentation, and the teaching approaches to be used on the basis of the composition of students in their classes. The three core topics need not be presented as discrete units of study, but it is expected that all students will be able to master the core material given for each topic. The level of difficulty of an accounting course offered to Grade 13 students must be consistent with Grade 13 standards. It is expected that graduates of this course will be able to analyse data, to solve problems, to organize materials, to make decisions, to read and understand professional articles, and to prepare oral and written reports. They should be adept at interpreting published financial reports and thoroughly familiar with the principles involved in their composition. In this way, their learning and ability will go beyond the mere solution of textbook problems.

1. Introductory Principles and Concepts

Core Material

The program shall provide opportunities for the student to learn to:

- use basic accounting terminology;
- journalize and post to the general ledger;
- explain and use common applications of columnar journals and subsidiary ledgers;
- prepare worksheets, adjustments, and financial statements from given data;
- compare and contrast the three basic forms of business ownership (proprietorship, partnership, and corporation).

Note: To ensure that the time spent on introductory accounting principles and concepts is not excessive, no more than 25 per cent of the total time available should be spent on this part of the course. It is hoped that teachers will require less time than this maximum, particularly with classes in which students already have some background in accounting.

2. Generally Accepted Accounting Principles

Core Material

The program shall provide opportunities for the student to learn to apply the following principles:

- initial recognition of transactions;
- recognition of revenue as earned;
- matching of cost and revenue;
- measuring inventory cost and cost of goods sold;
- measuring cost of tangible assets and depreciation;
- treatment of costs of intangible capital assets, prepaid expenses, and deferred charges;
- treatment of extraordinary items and prior period adjustments.

Note: Most of the concepts in this core topic lend themselves to continued treatment throughout the entire course.



3. The Corporation

Core Material

The program shall provide opportunities for the student to learn to:

- describe the procedures for establishing a corporation;
- explain government regulations that affect the accounting functions in corporations;
- compare and contrast share characteristics and types;
- analyse share transactions;
- interpret corporate financial statements including retained earnings, dividends, appropriations, and commonly used and comparative data.

Optional Topics

At least *seven* of the following ten topics shall be studied.

1. *Budgets:* stages in preparation; types of budgets; reports and statements incorporating budget figures.
2. *Taxation:* three levels of taxation; tax planning; tax advantages of different forms of business ownership; tax incentives; capital gains and losses; business losses; payment of tax; individuals as taxpayers; dividends.
3. *Statement of Changes in Financial Position:* working capital; flow of funds; usefulness of the funds statement.
4. *Manufacturing Operations:* manufacturing process; elements of manufacturing costs; financial statements for a manufacturer; comparison of job order and process cost systems.

5. *Alternatives to Historical Cost Accounting*: an introduction to general price-level restatements (inflation accounting); an introduction to current value accounting: (a) replacement cost accounting, and (b) market resale value accounting.
6. *Inventories*: importance of inventories; components of inventory cost; counting inventory; different methods of valuing inventory; perpetual inventory.
7. *Plant and Equipment*: costs; depreciation; balance sheet values; disposals; improvements.
8. *Internal Control*: concept of control; the need for internal control; systems for internal control.
9. *Partnership*: characteristics and formation; advantages and disadvantages; partnership agreement; equity accounts; distribution of net income; interest; salary; income sharing ratio; dissolution.
10. *Borrowing Funds*: alternative methods of debt financing; mortgages, bonds, and loans; relationship to equity financing.



Teaching Suggestions

In developing a course for Accounting, Honour Graduation, the teacher should give special attention to the following factors:

1. Individual Student Needs

Accounting, Honour Graduation, may attract students who have quite different backgrounds in accounting. Some students may have had no previous exposure to accounting, while others may have taken one or more courses in accounting. Some students will be familiar with basic accounting theory, but others will not.

This variation presents a challenge to the teacher. Obviously, it is not desirable that some students remain idle while their classmates complete the basic material. At the very least, students having some experience in accounting can be asked to complete assignments on material with which they are familiar while the other students are learning the basic theory. Alternatively, each student may be required to begin at the point where his or her previous experience left off and to proceed on an individual basis. This situation will require imagination and resourcefulness on the part of the teacher as the initial part of the program will have to be planned so that it meets the individual needs of all the students.

2. Principles and Concepts

It is unlikely that students of Accounting, Honour Graduation, will become bookkeepers or accounting clerks. Therefore it is unwise to devote a great deal of time to the study of the procedural aspects of bookkeeping; time can more profitably be spent in other areas.

This same argument can be applied to introductory theory. Some topics — subsidiary ledgers, for example — can be touched on briefly, since students at this level can be expected to cover the basic theory at a fairly rapid rate. It is essential, however, to reduce the area of potential overlap with other accounting courses in the school.

Throughout this course, principles and concepts are to be stressed more than procedures. For example, in teaching the Statement of Changes in Financial Position, teachers should emphasize the purpose of the statement rather than its preparation. This does not preclude the study of the

working papers; they should not, however, be studied for their own sake.

3. Various Modes of Presentation

Traditionally, the content of this course has been taught sequentially from one of a number of advanced textbooks. Teachers are encouraged, however, to consider imaginative ways of teaching the course. For example, “The Corporation” might provide a theme that would clarify accounting principles and concepts. The course might start with an examination of the financial reports of a number of public corporations. This activity would lead directly into a number of important topical issues such as inflation accounting. Individual topics can be treated through textbook assignments, research reports, or some other means. What the students learn in each topic will add to their knowledge of the corporation and ultimately lead to their mastery of a body of generally accepted accounting principles. This will include an understanding of accounting systems, procedures, and techniques, and an appreciation of standards of disclosure on accounting statements.

4. Appropriate Teaching Techniques and Resources

Several techniques are appropriate to the teaching of accounting. Textbook exercises may be used. However, in order to stimulate students and to challenge them to achieve their full potential, textbook exercises should be supplemented by case studies, written and oral reports, outside reading assignments, debates, and research projects. An example of the latter is an investigation into the history of a particular corporation: its formation, personnel, and major changes or achievements. The “Business Game”, sponsored by the Institute of Chartered Accountants, can also be used effectively in the classroom.

Teachers will probably use one or more textbooks and will enrich their courses with additional resource materials. Articles from various professional magazines and business publications are useful for defining areas for discussion or investigation and for relating the subject matter of the course to the real business world. Data processing periodicals show the link between accounting and the electronic world of the computer. The financial reports of public companies, which are avail-

able free of charge, can be analysed and interpreted, and are superb resources for studying different styles of financial statement and for initiating topics of study. Guest-speakers from professional associations and films are other effective resources.



5. *"Internal Control" and "Generally Accepted Accounting Principles"*

The study of internal control and of generally accepted accounting principles is essential to a serious study of accounting. These topics will recur throughout the course, as they relate to more than one area of study. The study of inventory, for example, leads naturally into the question of internal control because some system of control is required to prevent shortages and to allocate cost. A discussion of internal control will also arise naturally out of such topics as cash and accounts receivable.

Matching costs against revenues is an example of an important accounting principle that is relevant to many topics in this course. Aspects of this principle will arise in the study of such topics as depreciation, year-end adjustments, and inventory valuation.

6. *The Use of Accounting Data*

Accounting data have many practical uses. Primarily, they provide the basis for management decisions — both current and long-range. They are also a guide for the daily activities of a business. This aspect of accounting is widely reported in business publications and provides excellent material for student essays, projects, and reports.

The accounting system also serves those outside business. Shareholders require information about the affairs of the business to help them make decisions regarding management or dividend policy. Investors require information that will help them to assess the relative merits of two companies and to weigh the advantages of buying, holding, or selling shares. Students should be expected to report on the various uses of accounting data.

SECTION C

TEACHING SUGGESTIONS

The following suggestions and their related aims can be used to help students achieve the aims and objectives of accounting courses developed from this guideline.

Aim No. 1

All courses in accounting shall allow students to develop an understanding of the accounting terms, principles, systems, procedures, and applications encountered in personal and business affairs.

Teachers can make use of a wide variety of techniques and equipment in the classroom. Charts, posters, and overhead transparencies are valuable resources in the initial stages of teaching accounting theory. A horizontally lined chalkboard (black on black is ideal) and a large T-square are extremely useful. Typical accounting forms can be ruled quickly by sliding the T-square along the chalk ledge. In this way, the blackboard work of both teacher and student is improved, and student participation at the blackboard is facilitated.

When introducing new concepts, teachers might strive to create a relaxed learning environment. In

such an environment, there are no "bad" answers, although there may be incorrect ones. Incorrect responses should be handled tactfully. Case studies drawing on examples from the students' own experiences should be used to illustrate points of theory or practice whenever possible.

Although information processing is usually done by the handwritten method in the accounting classroom, students should be exposed to other methods that are used in the business world. Articles from newspapers and magazines describing recent advances in automated accounting techniques can be posted on the bulletin board. As well, students can readily gather information on automated cash-register systems from the many retail outlets in which they are used. This information can be organized in oral reports to be presented to the whole class.

Aim No. 2

All courses in accounting shall allow students to develop an understanding of the uses and significance of accounting information and reports.

Teachers can prepare a comparative income statement (in condensed form) for three consecutive years. Students can answer questions pertaining to the profit situation from year to year and can determine what has contributed most to the change over the three years. They should be able to describe how improvements could be made in the expense section and to suggest which expenses should be more closely controlled. They can prepare an income statement for the fourth year and justify their predictions. The significant differences in dollar and percentage changes should be demonstrated, and the importance of comparing a base year with a subsequent year should be stressed. Students can also prepare a pie graph to show the percentage of expense and profit in relation to sales.

Teachers can prepare a comparative balance sheet (in condensed form) for two consecutive years. The students can indicate the important changes that have taken place over the year, the logical reasons for these changes, the trends, and the long-range predictions. Through group discussions, they can determine how the financial situation could be improved. Finally, the students can prepare a balance sheet that they feel will most likely reflect the company's financial position for the next financial period. They can defend their predictions orally. The terminology related to the balance sheet ("current assets", "current liabilities", and so on) should be emphasized.

Aim No. 3

All courses in accounting shall make students aware of careers and of the possibilities for further study in accounting and related fields.

Job descriptions for accounting careers can be developed from information obtained from Canada Manpower offices, the School Guidance Information Service (SGIS), and other sources. Bulletin-board displays on accounting careers can be helpful. Courses of study for post-secondary accounting courses and literature from professional associations should be obtained for classroom reference. Students can collect and discuss newspaper articles on accounting positions and

the classified advertisements of local newspapers in order to assess the job market for accounting graduates. They can prepare a list of questions and can interview (individually or in groups of two or three) someone working in an accounting position that interests them. Films on accounting careers can be shown (see the resources section at the end of this document), and some consideration should be given to the establishment of a work-experience program for accounting students (see the Ministry of Education publication *The Co-operative Utilization of Community Resources for Diploma Credit Courses: A Supplement to H.S.1*).

Aim No. 4

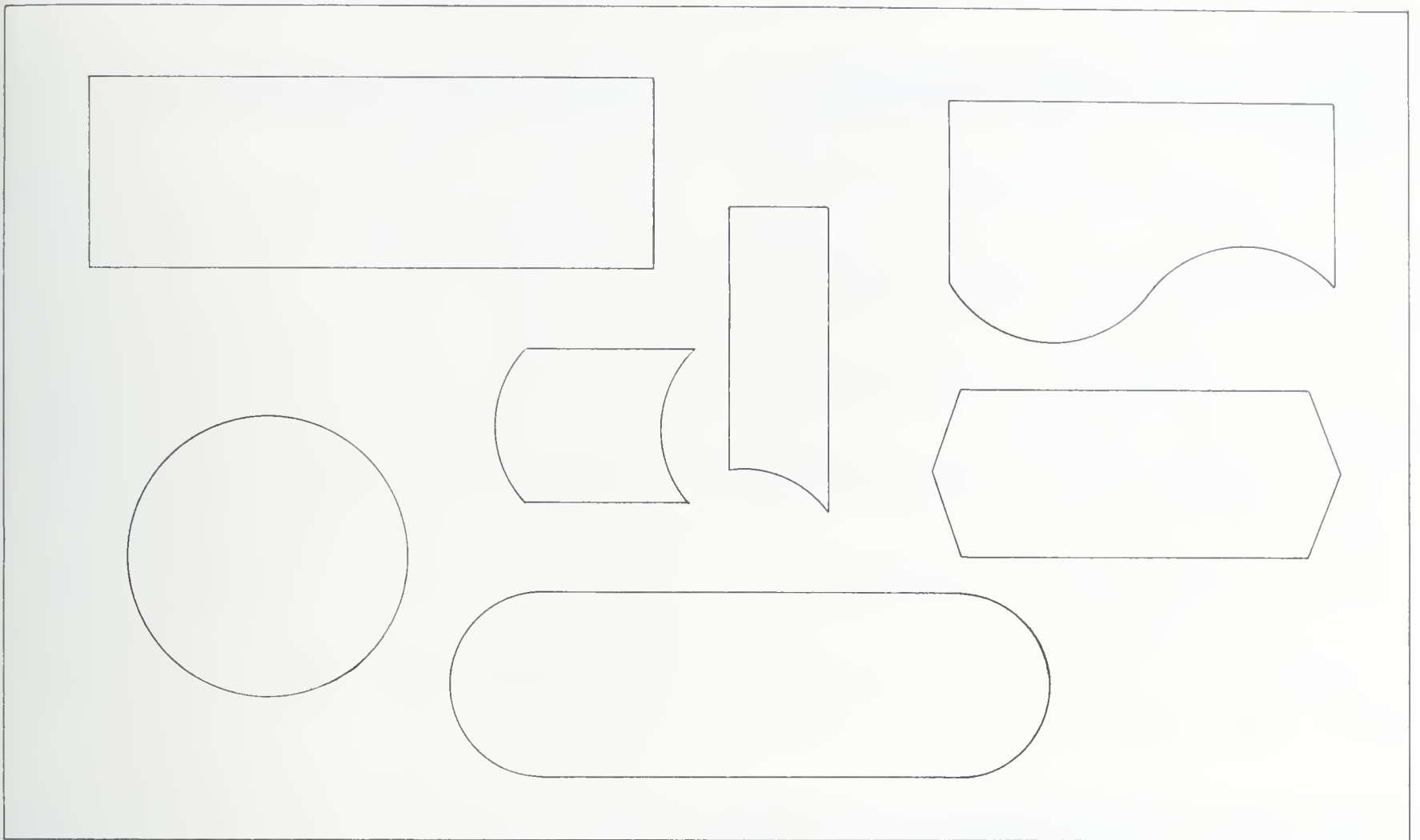
All courses in accounting shall give students opportunities to develop communication skills in an accounting context.

Teachers can encourage the development of reading skills by:

- clarifying the purpose to be achieved from a reading assignment;
- using a variety of methods to reinforce the students' understanding of accounting vocabulary;
- teaching students how to use the various parts of a textbook (table of contents, index, glossary, and so on);
- occasionally checking student comprehension of assigned reading through the use of such devices as the precis; and
- teaching essential material through the use of clearly written textbooks and/or simplified versions of the material prepared and duplicated for this purpose.

Writing skills can be developed by encouraging assignments that involve writing paragraphs (e.g., case studies) and by developing questions that will require students to give full-sentence answers and explanations. Students can practise oral skills by explaining and interpreting what they have learned from a lesson, by providing constructive input for classes or teaching mini-lessons of their own, and by giving oral presentations such as case-study solutions.

Students should be encouraged to use charts and graphs to present and interpret financial information and to read relevant articles in various financial publications. Teachers of accounting should work in co-operation with the school's English teacher and should adapt to the accounting class the suggestions found in Ministry support documents relating to language teaching.



Aim No. 5

All courses in accounting shall give students opportunities to develop thinking skills in an accounting context.

Teachers can present new topics by using problems or problem situations as an alternative to the "presentation" approach. In this way, students will be encouraged to recognize specific problems, to propose possible solutions, and to determine the soundness of proposed solutions.

Students should be provided with opportunities to interpret data critically. They should be encouraged to deal with elementary comparative data, to explain possible causes, and to predict likely outcomes. They can highlight information on charts or graphs and interpret these visual aids in class. As well, students can use flow-charting to represent an accounting sequence.

Thinking skills can be promoted through the use of relevant case studies which encourage students to clarify, interpret, analyse, evaluate, and predict. Open-ended discussion of problems involving values in an accounting context will encourage the development of higher levels of thinking skills.

Students should be encouraged to relate a problem-solving model to real-life experiences. This

skill will prove useful to students in their own lives outside of the classroom. In the same way, problems, examples, and cases should be made relevant to the lives of the students. Comparative financial data on a school dance or the school yearbook will be of interest to students because such projects have direct relevance for them.

Students should have some opportunity to select topics, projects, and methods of evaluation. This will heighten their interest and increase their involvement and will be more likely to stimulate their thinking. They should be encouraged to explain the reasoning behind their answers, whether their answers are right or wrong. They should be provided with additional facts and be required to explain how these facts change the given situation. They should be able to generalize their conclusions in order to summarize the views they express. They should learn to develop criteria for evaluating projects, activities, and solutions to cases. Brain-storming sessions are often helpful. Teachers should be aware of the questioning skills that promote higher levels of student thinking.

The evaluation section of this guideline contains further suggestions on the development of thinking skills through the use of tests.

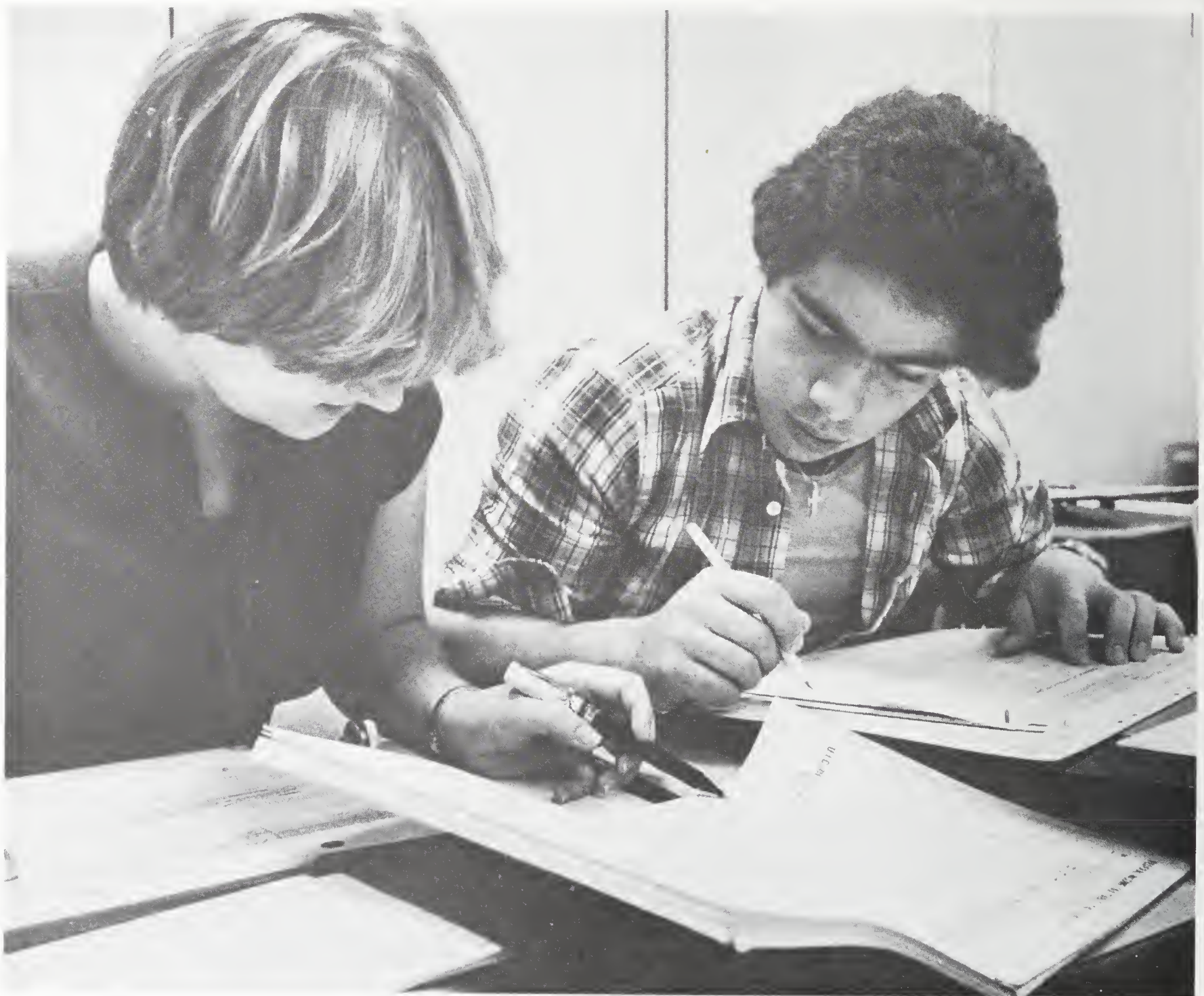
Aim No. 6

All courses in accounting shall give students opportunities to develop work habits useful in later life.

To encourage the development of these skills, the teacher should:

- have students maintain a neat and complete set of class notes and exercises;
- use consistent standards when evaluating student work;
- reward students who take pride in the neatness of their work;
- impress on students the need for punctuality by stressing the importance of meeting deadlines, coming to class on time, and so on;
- expect students to come to class prepared for planned assignments;

- prepare meaningful assignments that are relevant to the students and that will encourage them to use their time effectively;
- provide opportunities for students to work independently, for example, through independent study units;
- encourage students to work in pairs;
- give students opportunities to relate to others through case studies, problems requiring group decisions, and so on. The teacher should make sure that groups are kept as flexible as possible to give students the opportunity to learn to work with people of varying abilities and temperaments. If the composition of groups is changed from time to time, students will be faced with the necessity of acting as leaders on some occasions, and followers on others.



Aim No. 7

All courses in accounting shall help students to develop a positive sense of self-worth and respect for others.

In order to reach these objectives, teachers should:

- give students approval when they do good work;
- demonstrate satisfaction when students improve their work;
- encourage students to support each other's good work;
- exhibit a high standard of lesson presentation both orally and in written form;
- express satisfaction with the quality of the work done by the class as a whole;
- provide tasks that students can complete successfully;
- provide projects of varying degrees of difficulty to accommodate the range of student abilities within the class;
- exhibit a positive and receptive attitude towards student contributions, oral and written, even

when they are inaccurate and incomplete, and use such contributions to determine where help is needed;

- provide a supportive attitude for less capable students;
- refrain from treating attempts that result in failure in a negative way;
- create a climate of mutual respect;
- provide students with opportunities to practise co-operative skills by devising projects that allow two or more students to work together;
- encourage students to accept the ideas of all members of a work group;
- stress the need to listen, to share ideas, and to plan co-operatively in order to complete a task;
- make students aware of how one's behaviour affects others;
- provide ample opportunity for students to develop and practise the skills needed to bring a group endeavour to a successful conclusion;
- set a model in behaviour that students can emulate.

Aim No. 8

All courses in accounting shall make students aware of the role of values in making business decisions.

Current affairs of a business or accounting nature can be used to develop a class discussion. An actual business situation can be analysed and the value issues identified. The students can deter-

mine possible solutions and the reasons for the solutions. Similarly, case studies with related value issues can be studied in specific content areas. The relationship between actual expenses incurred and expense-account submissions can be discussed, and students can relate value issues to personal experiences. Teachers should make sure to keep discussions open-ended.

SECTION D

EVALUATION

Rationale

Evaluation, of either student performance or the school program itself, may be defined as the judgement or decision reached as the result of careful consideration of the available information; *assessment* may be defined as the collection of relevant data from a variety of sources. Thus assessment must precede evaluation: tests, observations, interviews, assignments, projects, and student records all provide information that enables teachers to make sound judgements or choices for the benefit of either individual students or the program as a whole. The communication of these decisions allows the students to judge their own progress, the teachers to adjust the pace and approach of the program, the parents to be informed, and the principal and other staff members to be more fully aware of the influences that impinge on each student.

The results of evaluation provide students with an indication of their competence in the tasks that have been set. The judgements should indicate which areas require extra effort or help and which objectives may need revision. Evaluation should have a positive influence on students by acknowledging the effectiveness of their efforts and recognizing their achievements.

There are many assessment techniques that will help teachers diagnose student strengths and weaknesses. Test items should be clearly related to concepts so that both teacher and student can identify areas of weakness. (Teachers should be aware that long, sequential exercises reduce this opportunity.) Regular observation of attitudes, work habits, and use of resources will often reveal ineffective strategies and enable teachers to suggest alternatives. Assessment also provides information regarding a student's readiness to proceed to the next unit of work.

Assessment provides teachers with information that will help them determine the emphasis of their course and that will show whether progress is being made towards the achievement of course aims and objectives. Evaluation of student performance can be used to determine the appropriateness of course content and the effectiveness of the teaching strategies and learning materials that are being used with a particular class. As well, it can serve to indicate priorities that should be observed in the presentation of course material to the students.

One of the purposes of evaluation is to assign a numerical value to the student's level of competence. The grade may be determined by using a variety of weightings and formulas. However, teachers should be aware of the danger of determining student grades solely on the basis of test scores. If grades are determined from tests alone, the importance of class participation and attendance may be diminished in the eyes of the students. The marks given on tests, essays, projects, assignments, and other class work should all be a part of the final grade.

The evaluation of student progress and achievement must be clearly reported. Both students and their parents require such information. Similarly, administration and guidance personnel need this information to help them make decisions that affect the student's future — decisions relating to promotion, further education, and future employment. In addition, evaluative information will help the school determine whether it is achieving its objectives.

Thus the reporting of evaluation must be carried out with great care. In assessing a course in Accounting, Honour Graduation, for example, teachers must remember that the credit gained in this course may be used as an indicator of a student's ability to make the transition from secondary school to a university or college.

Criteria

The methods of assessment used must be closely related to the aims and objectives of the course and must act as an incentive to learning during the course rather than as a hurdle to be overcome at the year's end. Standards should be set high enough to challenge all of the students, while at the same time recognizing the range of individual abilities, needs, and interests within any given class.

An attempt should be made to evaluate all of the course objectives. This is much more difficult for some objectives than for others, but this real difficulty should not be used as a reason for completely omitting certain objectives from the course. The assessment process will highlight certain discrepancies between what is being achieved and what is being aimed for, and it is these discrepancies that will help the teacher determine what changes should be made to improve the course.

A very desirable, although difficult, aim of evaluation is to determine the student's actual achievement in class in relation to his or her potential. The teacher should be alert to the different needs, interests, and abilities of the students and should design learning opportunities and assessment techniques that take these into account. Evidence has shown that the frustration of repeated failure has serious negative effects on the morale of the student; successful experiences are thus a significant element in a student's desire to continue learning.

In developing a system of evaluation, attention should be given to the area of self-evaluation. It is desirable for young adults to develop a sense of

responsibility and independence, to learn to direct their own learning, and to make wise decisions based on personal standards. The development of this ability can be facilitated through the wider use of self-evaluation techniques. These include comparisons with work previously done, the use of checklists, and exercises based on a well-defined sequence of tasks. An essential feature of self-evaluation is dialogue with and guidance by the teacher.

Tests can be used to reinforce learning when they focus on essential parts of the course and consequently provide the basis for review and reinforcement. Where possible, tests should be administered in a way that incorporates them into the learning process. Students can see what questions they missed and why only if the test papers are returned promptly. If the papers are not returned at all, students may react in a negative or hostile way.

Better uniformity in one assessment technique can be achieved in a school through the use of marking seminars, in which the school's accounting teachers compare their assessment of selected student papers. In such a situation, each teacher grades the papers individually and makes notations. When all have finished, the results and the reasons for the assigned grades are shared. It is important that teachers make certain that the marking scheme they use is a true reflection of their priorities.

Types of Assessment

There are many effective assessment techniques available to teachers. Over an entire course, the use of a variety of techniques will provide a more accurate indication of a student's progress than reliance on one. In the development and use of assessment strategies, teachers need to be sensitive to the validity of the techniques chosen for the particular task or unit of work to be measured.

As part of the evaluation system, the aims of the course, the teacher's expectations, and the criteria for evaluating student performance should be discussed with the students at the beginning of the unit, term, or year. Participation in this kind of decision-making helps to motivate the students to improve their performance.

Normally the data will be collected for different purposes. The following are some useful techniques for collecting information on student achievement.

Essay-Style Questions. The essay provides one of the best means of determining a student's power of expression and reporting ability. In accounting, the case study is probably the best means of obtaining an essay-type response.

Problem Tests. The problem-type of test is perhaps the most commonly used. It eliminates guesswork and tests the student's knowledge of terminology and skill in the analysis, organization, and presentation of material. It provides an opportunity to distribute published financial statements to the students, to ask questions about the statements, and to have students rework them on the basis of given additional information. The time allotted for tests of this type must be carefully worked out. Students must also be given opportunities to encounter such tests casually before being required to complete them under conditions that generate stress.

Objective Tests. Objective tests evaluate the acquisition and understanding of factual information. They are the easiest of all types of test to mark.

Oral Tests. Oral interviews require a different type of preparation. The teacher can begin an interview informally, gradually developing the test in the course of the interview. He/she can also change the direction of the interview and rephrase questions to test student understanding. Teachers are urged to be cautious in the use of oral tests: a student may see such a test as a personal confrontation, a situation that can create undue stress. Personal interviews are time-consuming and may therefore be best used in individual or difficult cases to ascertain a particular student's progress or to assess such areas as poise and mental alertness.

Projects. There are many opportunities in the accounting curriculum for students to conduct investigations and to compile oral or written reports, individually or in groups. Such reports can be illustrated in many cases by graphs and charts.

Item Banks. Consideration should be given to the development of item banks — collections of test items that focus on specific concepts. Each item may be placed on a separate card on which is recorded the date the item was used, any statistical information relating to its effectiveness, and suggestions for improving it. In the long run, this will help teachers design alternative tests of comparable difficulty, and, if the tests are shared with other teachers, a greater degree of uniformity will be achieved within the school or jurisdiction.

Retesting. The use of retesting has merit. If it is considered more important for a student to achieve a certain competency than for that competency to be achieved by a certain specified test date, then the student should be allowed the opportunity to complete remedial work and to retake the test. (The time, conditions, and marking scheme for retesting are excellent topics for discussion and involvement with the class.)

Formative Evaluation. This category consists of testing whose prime purpose is to improve learning rather than to produce a grade. Normally, a teacher provides a test, or test items, that students complete. They or the teacher reviews the test items, but no grade need be recorded. On the basis of this form of evaluation, some students will redo the unit while others will move on to different activities. When the students attempt the actual unit test, which is graded, they will have a greater degree of confidence in the method used to evaluate them and in their own ability to succeed.

Summative Evaluation. Summative or long-term evaluation is concerned with a final summation at the end of a course or period of time. It should reveal the progress made by the students and the effectiveness of the program in all its aspects.

These two functions of evaluation are complementary. If ongoing assessment and recording are effective, the need for data of a summative nature is reduced. Decisions can be based on the body of information gathered over weeks or months.

Self-Evaluation. The teacher might use the following practical suggestions to encourage self-evaluation:

- Have students check their own work against a model, which may be presented on an overhead transparency.
- In assigning a project, ask students to develop their criteria for grading, to explain how the project was planned, to describe what resources were used, and to state and justify the grade they expected to receive.
- Review with the student in class the quality of his or her notes or sample exercises and co-operatively arrive at a grade for them. Students should be provided with an outline of the teacher’s criteria for grading notebooks.
- Provide copies of a student’s exercise to the whole class. Have students work in pairs to establish criteria and to grade the exercise. Reconvene the class and discuss their results.
- Ask students to exchange an exercise or test and to mark it, making notations at the same time. The tests are then returned, and the students explain their marks and notations to each other.
- Ask students to compile a report on their achievements during the course. They can complete a checklist on the degree of their improvement in certain attitudes and skill areas.

Teachers are referred to the Ministry publication *Evaluation of Student Achievement*, pp. 30-39, for further suggestions.

Table of Specifications. To improve the validity of the content of tests, consideration may be given to the use of a table of specifications. Such a table of specifications differentiates between what a teacher intends to test and what is actually tested. While not intended to limit the teacher, it will serve as a guide in the construction of tests to ensure a proper sampling of the unit at a level of thinking that goes beyond factual recall. It will also assist in later test revisions by indicating areas that need strengthening.

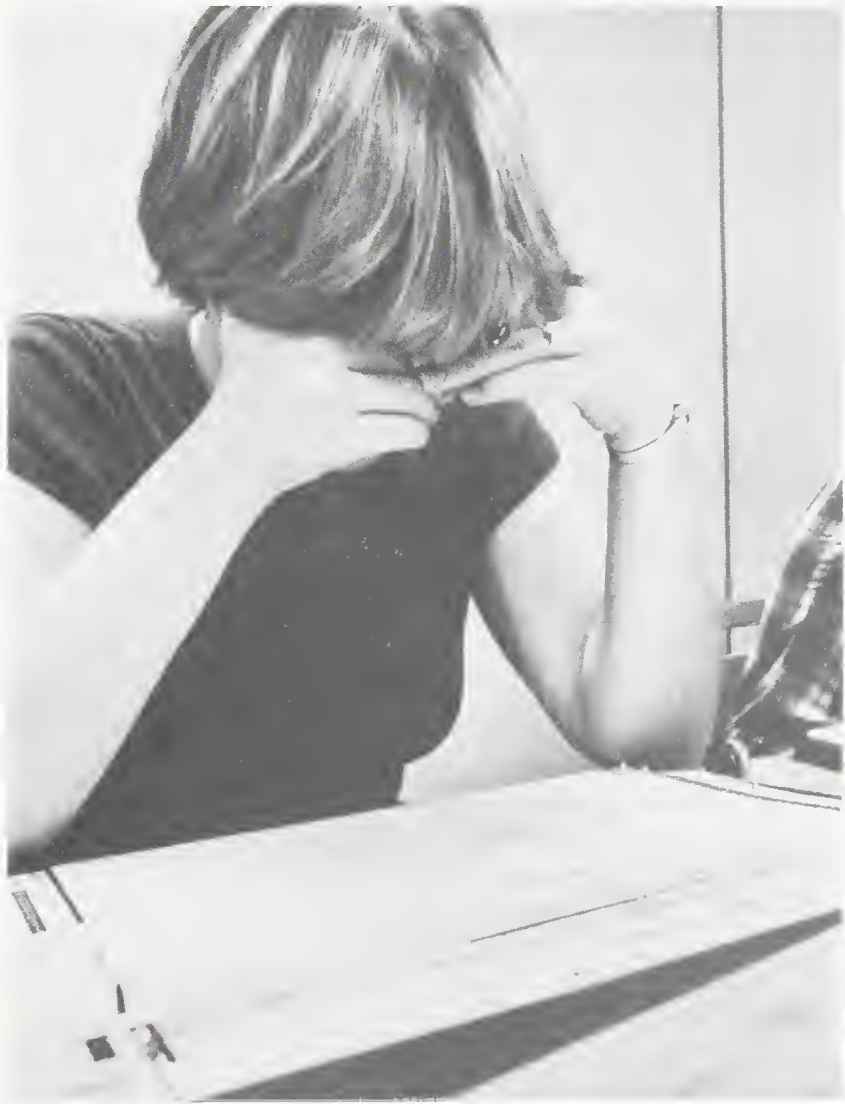
To build a table of specifications, the teacher must decide on:

- the relative importance of the topics to be tested; and
- the relative importance of the functions or operations that the students are to perform.

These rankings can be expressed in percentages. For example, one content unit may consist of the following topics and operations:

Topics	Relative Weighting
Two-column journal	30%
Ledger	20
Trial balance	10
Simple financial statements	40
	100%

Operations	
Factual recall	10%
Comprehension	20
Application to a new situation	50
Higher levels of thinking	20
	100%



The content topics are then listed along one side of the table, and the student operations are listed across the top. The various cells in the table are given values according to the teacher's objectives, and the table is box-balanced, as in the following example:

Table of Specifications for Unit X

<i>Topics for unit</i>	<i>Recall</i>	<i>Comprehension</i>	<i>Applications</i>	<i>Higher levels of thinking</i>	<i>Total</i>
Two-column journal	5%	10%	15%	—	30%
Ledger	—	—	10	10	20
Trial balance	—	—	5	5	10
Financial statements	5	10	20	5	40
	10%	20%	50%	20%	100%

As test items are written, they are identified with one or more of the cells of the table, and this information is recorded. The tendency to over- or under-represent any item is thus minimized, increasing the validity of the test's content.

Attitudinal Evaluation

Evaluation in the area of attitudinal change often founders because of a confusion between evaluation and grading. Evaluation may be seen as the gathering of data needed to make effective educational decisions. Such data may consist simply of observations or anecdotal comments, and the educational decisions might refer not to an individual student, but to some desirable change in the teacher's methodology; that is, evaluation should

address all the educational objectives, including attitudinal objectives, and the resulting data should be used to improve those elements in the curriculum that are under the teacher's control. Teacher observations, anecdotal comments, rating sheets and checklists, self-inventories, questionnaires, student-teacher interviews, group discussion, and student evaluations of the course are all useful in attitudinal evaluation.



SECTION E

SELECTED BIBLIOGRAPHY

Circular 14 contains the titles of textbooks approved for use in Ontario classrooms.

Audio-Visual Materials

The Break-Even Point. Salenger Educational Media, 1977. 16 mm, colour, 14 min. Distributed by Marlin Motion Pictures.

This film illustrates the various steps in the decision-making process as the president of an organization, together with his management team, charts, uses, and analyses a break-even graph in an attempt to come to a decision as to whether or not to engage in the production of a new product.

Curry, Dudley W., and Frame, Robert J. *Accounting Principles: A Multi-Media Program*. Downsview, Ont.: Charles E. Merrill, 1973.

Colour filmstrips and audio cassettes are used to provide an integrated audio-visual presentation of a complete basic accounting program.

Grant, Charles F. *Introductory Accounting*. Downsview, Ont.: Charles E. Merrill, 1977.

This is a co-ordinated audio-tutorial approach to introductory financial accounting with an emphasis on procedures. The program is structured to provide the students with immediate feedback; they read, listen, apply learning, and check answers. The program consists of a textbook and audiotapes.

Men of Account. Institute of Chartered Accountants of Alberta. 16 mm, colour, 25 min. Distributed by Modern Talking Picture Service.

This film depicts the professional involvement of a chartered accountant with three clients, each of whom has a different problem. The chartered accountant's judgement, tact, and technical competence are shown.

Pillsbury, Wilbur F. *Principles of Accounting Audio-Cassette Study Guides*. Cincinnati, Ohio: South-Western Publishing Co., 1976.*

This material is designed to accompany *Accounting Principles* by Niswonger, Fess, and Parker. These individualized instructional materials are suitable primarily for remedial study and for students having difficulty in the Principles of Accounting course. The complete course consists of 39 cassettes and 4 accompanying study guides. Each of the components can be obtained separately and can be used with most first-year accounting texts.

Books

Anthony, Robert N. *Essentials of Accounting*. 2nd ed. Reading, Mass.: Addison-Wesley, 1976.

This is an easy-to-read programmed text covering basic accounting concepts and principles. The text includes a number of units that can be studied individually, and is suitable mainly as a resource for students who require independent study in specific areas.

Beam, R. E., and Lund, C. *Accounting Basics: Introduction*. Scarborough, Ont.: Prentice-Hall, 1971.

This book offers a clear and concise treatment of accounting theory with an emphasis on reasoning. The corporate model is used from the initial stages.

*Canadian representatives of U.S. companies are given on p.46.

Brock, H. R.; Palmer, C.E.; and Archer, F. C. *Accounting: Basic Principles*. 3rd ed. New York: McGraw-Hill, 1974.

Written for the one-year, college-level accounting course, this text utilizes the traditional balance sheet approach. It reads easily and makes a useful resource book. Because it is an American text, certain sections such as payroll are inappropriate. Workbooks with performance guides are also available.

———. *Cost Accounting: Theory/Practice*. 2nd ed. New York: McGraw-Hill, 1971.

This text provides a comprehensive examination of the techniques of cost accounting. It is a college-level text that could serve as a reference book for teachers and as a resource book for students. The two-principle costing systems — job order and process — are thoroughly explained. The book shows the importance of subsystems for inventories, purchases, payrolls, and allocations of costs in the total picture. A workbook containing problems and working papers is also available.

Bruns, William J., Jr. *Introduction to Accounting: Economic Measurement for Decisions*. Don Mills, Ont.: Addison-Wesley, 1971.

This book explains accounting from the point of view of decision-making in an economic context. Although written primarily for university students, the book is a good source of reference material for student research projects. It may also be suitable as general reading for highly motivated students.

Canada, Department of National Revenue, Taxation. *Teaching Taxes* (1977). Ottawa: Revenue Canada, Taxation, 1977. (Available from Information Services Branch, Revenue Canada, Taxation, 875 Heron Road, Ottawa, Ontario K1A 0L8.)

This annual publication, available to teachers free of charge, explains the filing of a tax return for a sole proprietorship.

Carey, John L. *Getting Acquainted With Accounting*. Boston, Mass.: Houghton Mifflin, 1973.

This paperback focuses on the nature, scope, and uses of accounting rather than the mechanics of the subject. It is a readable resource book for students as well as teachers. Topics covered include: What Is Accounting?; Development of Accounting Principles; Planning, Control and Decision-Making; and Income Tax.

Dauderis, Henry; Slavin, Albert; and Reynolds, Isaac. *Basic Accounting*. 2nd Canadian ed. Toronto: Holt, Rinehart and Winston, 1978.

The conceptual aspects of accounting are emphasized in this text in which the corporate form of business organization is used as a model. It is an advanced text suitable for use in Honour-level accounting courses or as a reference book for teachers or school libraries.

Douglas, L. V.; Blanford, J. T.; and Anderson, R.I. *Teaching Business Subjects*. 3rd ed. Englewood Cliffs, N. J.: Prentice-Hall, 1973.

This book is designed to assist teachers in the development of teaching strategies in a variety of business education subjects.

Dye, C. F. *Teaching Bookkeeping-Accounting Today*. Portland, Maine: J. Weston Walsh, 1975.

This book offers practical suggestions on methodology and examples for the teacher of an introductory accounting course. A set of spirit masters is available to supplement the book.

Erskine, J. A., and Leenders, M. R. *Case Research: The Case Writing Process*. London, Ont.: School of Business Administration, The University of Western Ontario, 1973.

This book provides suggestions for the preparation of case studies to be used in the classroom.

Fertig, Paul E.; Istvan, Donald F.; and Mottice, Homer J. *Using Accounting Information: An Introduction*. 2nd ed. New York: Harcourt Brace Jovanovich, 1971.

This advanced book is written for the professional accountant. It emphasizes such uses of accounting information as the flow of responsibility in large business organizations, the measuring of performance, cost control, planning for alternatives, and planning for the acquisition of facilities. The book may be a useful resource for teachers or for students researching material for projects and reports.

Hempel, M. W. *Introductory Accounting*. Parts 1 and 2. Portland, Ore.: National Book Company, Educational Research Associates, 1973.

A set of tapes accompanies these programmed instruction books. Each lesson contains a set of student objectives and a set of problems, including a large number of objective test items. Part 1 introduces concepts; Part 2 covers the trading company, special journals, subsidiary ledgers, and ten-column worksheets.

Meigs, W. B.; Mosich, A. M.; Johnson, E. C.; and Blazouske, J. D. *Accounting: The Basis for Business Decisions*. 2nd rev. Canadian ed. Scarborough, Ont.: McGraw-Hill Ryerson, 1976.

This is a comprehensive and authoritative text suitable for use at the advanced level. The book's contents extend beyond the coverage suggested for the Honour-level accounting course. This is an American text that has been revised to reflect Canadian law, practice, and terminology. Various related teaching aids and resource materials are also available.

Musselman, V. A.; Hanna, J. M.; Weaver, D. H.; and Kaluza, H. J. *Methods of Teaching Accounting*. 2nd ed. New York: McGraw-Hill, 1978.

This text focuses on modern methods of accounting and emphasizes current and innovative business practices. It gives assistance to teachers in the development of performance objectives. Suggestions for accommodating variations in student needs and comprehension levels are included.

Neeley, L. P., and Imke, Frank J. *Accounting: Principles and Practices*. Cincinnati, Ohio: South-Western Publishing Co., 1977.

This basic material is presented in three separate text-workbook modules: (1) *The Accounting Cycle: Service and Merchandising Businesses*; (2) *Accounting Controls and Systems*; (3) *Accounting for Partnerships and Corporations: Cost Accounting*. The modules may be used individually, as independent publications, or consecutively, as cumulative parts of a whole. An accounting simulation, tests, a student check sheet, and an instructor's manual supplement each module.

Niswonger, C. R.; Fess, P. E.; and Parker, J. R. E. *Accounting Principles*. Canadian ed. Agincourt, Ont.: Gage Educational Publishing, 1975.

This text is comprehensive and thorough in its selection and presentation of material and is suitable for Senior students. The relationship of theory to practice is demonstrated. A workbook, working papers, and practice sets accompany the text.

Noia, M. G. *Solve Your Bookkeeping and Business Problems*. Toronto: Noia & Associates, 1977. (Available from Noia & Associates, 2349 Yonge Street, Suite 1, Toronto, Ontario M4P 2C8.)

This book provides a guide for the establishment of an accounting system for a small business operation. The suggestions contained in the book could be adapted for use by any retail business that uses a manual system.

Noia, M. G., and Castiglione, J. V. *Solve Your Tax Problems*. Toronto: Noia & Associates, 1977-78.

This book presents information on various areas of taxation. It is designed for the individual taxpayer, the business person, and the professional accountant.

Pillsbury, Wilbur F. *Computer Augmented Accounting: Compuguide One*. 2nd ed. Cincinnati, Ohio: South-Western Publishing Co., 1974.

The objective of this text is to supplement the teaching of basic courses in accounting by means of computer applications. In this way the impact of the computer on accounting becomes evident, and the principles of accounting are reinforced through applications.

———. *Computer Oriented Accounting*. Cincinnati, Ohio: South-Western Publishing Co., 1974.

This book is designed to teach the problem-solving capability of the computer to secondary-school students. It is to be used in conjunction with a contemporary accounting text.

———. *Principles of Accounting Audio-Cassette Study Guides*. Cincinnati, Ohio: South-Western Publishing Co., 1976.

This material is designed to accompany *Accounting Principles* by Niswonger, Fees, and Parker. These individualized instructional materials are suitable

primarily for remedial study and for students having difficulty in the principles of accounting course. The complete course consists of 39 cassettes and 4 accompanying study guides. Each of the components can be obtained separately and can be used with most first-year accounting texts.

Popham, E.; Schrag, A.; and Blockhus, W. *A Teaching-Learning System for Business Education*. New York: McGraw-Hill, 1975.

This book outlines a competency-based system for teaching and learning all business subjects; it serves as a complete, practical guide to writing and using performance goals.

Pyle, W. W.; White, J. A.; and Zin, M. *Fundamental Accounting Principles*. 2nd Canadian ed. Georgetown, Ont.: Irwin-Dorsey, 1976.

This text is suitable for use at the Senior level. It is accompanied by a set of teaching transparencies, two practice sets, a workbook of study guides, working papers, achievement tests, and solution manuals for the text and practice sets.

Rosen, L. S. *Current Value Accounting and Price-Level Restatements*. Toronto: The Canadian Institute of Chartered Accountants, 1972.

This book was written for professional accountants and was commissioned by the C.I.C.A. research committee; it discusses alternatives to historic costs in accounting. The difference between current-value accounting and price-level restatements is explained.

Sanders, N. W. *Classroom Questions: What Kinds?* New York: Harper & Row, 1966.

This book is designed to assist teachers of many disciplines to develop questioning techniques that call for reasoning at different levels.

Sanzo, R. *Ratio Analysis for Small Business*. Washington, D. C.: Superintendent of Documents, U. S. Government Printing Office, 1977.

This paperback describes the use of basic ratios in a practical context. It includes a case study of a small business that is in financial difficulty.

Sayers, J. G., and Haddon, D. R. *Essential Accounting Concepts*. Rev. ed. Toronto: Holt, Rinehart and Winston, 1975.

This text, designed for one-year courses at the community college level, offers a different approach to accounting. Using the four major types of transactions as a base, it develops accounting theory by applying it to special journals, the general ledger, financial statements, and a number of additional accounting topics.

Schmiedicke, R. E., and Nagy, C. F. *Principles of Cost Accounting*. 6th ed. Cincinnati, Ohio: South-Western Publishing Co., 1978.

This text begins with a clear and comprehensive overview of cost accounting. Subsequent chapters provide an in-depth treatment of the subject. The book is accompanied by a practice set, stationery, and achievement tests.

Skinner, R. M. *Accounting Principles: A Canadian Viewpoint*. Toronto: The Canadian Institute of Chartered Accountants, 1972.

Skinner presents an authoritative study of the current state of accounting principles. Although the book is written for professional accountants and business people, the clear style of writing and manner of presentation make the book acceptable for use in secondary school accounting courses.

Sprouse, Robert T., and Swieringa, Robert J. *Essentials of Financial Statement Analysis*. Reading, Mass.: Addison-Wesley, 1972.

This programmed text clearly explains the most common ratios and relationships in financial statement analysis. It is a Senior level self-instruction text which is useful as a resource for teachers and as a source of enrichment material for students. An exhibit book of actual published financial statements accompanies the text.

Stickler, A. D., and Hutchins, C. S. R. *General Price-Level Accounting; Described and Illustrated*. Toronto: The Canadian Institute of Chartered Accountants, 1975.

A step-by-step guide to the preparation of price-level adjusted financial statements, this book was written in response to the pressure placed on accountants to show the effects of changes in the purchasing power of money in financial statements.

Swanson, R. M.; Boynton, L. D.; Ross, K. E.; and Hanson, R. C. *Century 21 Accounting*. Canadian ed. Agincourt, Ont.: Gage Educational Publishing, 1977.

This textbook presents basic accounting principles as applied to manual and automated data processing systems. The emphasis of the presentation is on careers. Working papers and study guides are available.

Walgenbach, Paul H., and Dittrich, Norman E. *Accounting: An Introduction*. New York: Harcourt Brace Jovanovich, 1973.

This advanced text contains separate sections on internal control, generally accepted accounting principles, the limitations of financial statements, and accounting for price-level changes. Chapters are devoted to job-order cost accounting and to process-cost accounting.

Weaver, D. H.; Hanna, J. M.; Freeman, M. H.; Brower, E. B.; and Smiley, J. M. *Accounting 10/12*. 3rd ed. New York: McGraw-Hill, 1977.

This text presents a thorough accounting program at the introductory and Intermediate levels. It is written in three parts, and is available in either a single hard-cover volume or in three separate soft-cover volumes. Throughout the text, a systems approach is integrated with data processing concepts and techniques. An assortment of teaching aids, including working papers, study guides, a solution manual, tests, and transparencies, accompanies the text.

Booklets

Canadian Institute of Chartered Accountants. *Internal Control in the Small Business*. Toronto: The Canadian Institute of Chartered Accountants, 1967.

This is a study dealing with the problems of small businesses; it includes a review of internal control in companies that have a limited number of employees.

Ontario, Ministry of Education. *Evaluation of Student Achievement: A Resource Guide for Teachers*. Toronto: Ministry of Education, Ontario, 1976.

The Royal Bank of Canada. *Your Business Matters*. Toronto: The Royal Bank of Canada, 1977. (Available from the Royal Bank of Canada, Royal Bank Plaza, Toronto, Ontario M5J 2J5.)

This kit includes ten guides for independent businesses. Problems and opportunities frequently encountered in business are discussed.

Tague, M. R. *Payroll Accounting*. Toronto: Copp Clark, 1973.

This booklet deals exclusively with payroll. Teachers should be mindful that certain aspects of payroll quickly become outdated — the method of determining the deduction of income taxes, for instance. It is advisable to obtain current payroll information and deduction tables to supplement the booklet.

University of Toronto, Faculty of Education, Guidance Centre. Occupational Information Monograph Series. Toronto: Guidance Centre, Faculty of Education, University of Toronto, 1975-78. (Available from Guidance Centre, 1000 Yonge Street, Toronto, Ontario M4W 2K8.)

The three booklets that comprise this series contain relevant information on careers:

Accountant (Chartered), 1978.

Accounting Clerk, 1975.

Management Accountant, 1977.

Walters, G. L. *The Development and Refinement of Reading Skills in Business Education*. Monograph 128. Cincinnati, Ohio: South-Western Publishing Co., 1975.

This 100-page paperback discusses reading problems and the skills that need to be developed. The book also contains a number of practical examples of teaching techniques that may be used in specific business education areas, including the field of accounting.

Dictionaries and Handbooks

Bloom, Benjamin S.; Hastings, J. Thomas; and Madaus, George F. *Handbook on Formative and Summative Evaluation of Student Learning*. New York: McGraw-Hill, 1971.

This professional handbook is designed to assist classroom teachers in the evaluation of student learning. Evaluation techniques are discussed both in a general context and with reference to certain major subject disciplines and levels of education. These techniques are intended to help teachers use evaluation to improve both the teaching and learning processes. Evaluation problems, methods of evaluation, and text construction are among the topics covered.

Canadian Institute of Chartered Accountants. *C.I.C.A. Handbook*. Toronto: The Canadian Institute of Chartered Accountants, 1975.

Dictionary of Accounting Terminology. 2nd ed. Cincinnati, Ohio: South-Western Publishing Co., 1977.

Kohler, Eric L. *A Dictionary for Accountants*. 5th ed. Englewood Cliffs, N. J.: Prentice-Hall, 1975.

Leonard, W. G. *Canadian Accountant's Handbook*. 3rd ed. Scarborough, Ont.: McGraw-Hill Ryerson, 1978.

Sevick, J. *A Handbook of Small Business Finance*. 8th ed. Washington, D. C.: Small Business Administration, 1975.

This small paperback presents a concise outline of the kinds of information that financial statements can provide for the small business owner. It also contains a number of sections on how to finance a small business.

Periodicals

Business Education Forum. National Business Education Association, 1906 Association Drive, Reston, Virginia 22091. Monthly, October to May.

This publication includes a variety of articles that have relevance for the classroom and the business community.

C. A. Magazine. Canadian Institute of Chartered Accountants, 250 Bloor St. E., Toronto, Ontario M4W 1E6. Monthly.

Written for professional accountants and financial managers, this journal contains a wide range of articles. It is the forum in which accountants speak out on topical issues, accounting standards, and the changing business scene. Some of the articles in this journal may be of interest to Senior students.

The Financial Post. Maclean-Hunter Ltd.,
481 University Ave., Toronto, Ontario M5W 1A7.
Weekly.

This publication offers regular features of current interest to students of accounting and related business subjects.

R. I. A. Digest. The Society of Industrial Accountants of Canada, 154 Main St. E., Hamilton, Ontario L8N 1G9. Bimonthly.

This publication contains summaries of significant articles from financial and management journals and provides a means of obtaining complete reprints of the articles abstracted.

Practice Sets

Clow, C.; MacDonald, R. D.; Freeman, M. H.; Hanna, J. M.; Kahn, G.; and Beers, W. L. *Judd Paint Company: Accounting Application for a Merchandising Business.* Canadian ed. Scarborough, Ont.: McGraw-Hill Ryerson, 1974.

Source documents are provided in this full-cycle practice set for students at the Intermediate level of study. The set includes cheques, journals, and other papers.

Envirotrol Corporation. Agincourt, Ont.: Gage Educational Publishing, 1978.

Two months' transactions are recorded in five special journals (sales, purchases, cash receipts, cash payments, and general) and three ledgers (general, accounts receivable, and accounts payable).

The Frazier Family: A Family Finance Simulation. Cincinnati, Ohio: South-Western Publishing Co., 1977.

The simulation involves the use of a combination journal, general ledger, financial statements, and budgets. Transactions typical for a family of four are provided in narrative form.

The Hudson Farm. Cincinnati, Ohio: South-Western Publishing Co., 1977.

This set applies the principles of accounting to farm records; it includes a combination journal, general ledger, cheque book, and printed forms.

Kaluza, H. J. *Accounting Projects and Simulations.* Scarborough, Ont.: McGraw-Hill Ryerson, 1977.

This soft-cover consumable book contains seven projects based on introductory accounting principles. The projects include: a cash audit; a cash control; an income tax return; an inventory control; and accounting records for a travel bureau, a dental office, and a merchandising firm. Necessary source documents and working papers are included. A key is available.

New Horizons. Agincourt, Ont.: Gage Educational Publishing, 1978.

This practice set is available with source documents and books of account or with narrative only and books of account. It handles the records of a sole proprietorship that specializes in retail camping gear and uses a cash-register system. Books of account include: a purchases journal, cash-payments journal, cash-receipts-sales journal, general journal, and a general ledger.

Norton and Page Ltd. Hardware and Building Supplies. Agincourt Ont.: Gage Educational Publishing, 1971.

This practice set contains journals, ledgers, and working papers. Transactions are in narrative form.

Professions Accounting. Cincinnati, Ohio: South-Western Publishing Co., 1977.

Three applications — records for a dentist, a doctor, and a lawyer — are contained in this simulation. Ledgers and papers are supplied. Transactions are given in narrative form.

Quadrasonics Business Simulation Set. Agincourt, Ont.: Gage Educational Publishing, 1978.

The contents of this one-month set consist of a general ledger, an accounts receivable ledger, and an accounts payable ledger. The student is required to keep the records of a small wholesale quadraphonic, stereo, and electronic sound equipment business in this single proprietorship simulation.

Stanley Manufacturing Company Limited. Agincourt, Ont.: Gage Educational Publishing, 1971.

This set simulates the job-order cost records that are used in a small manufacturing business over a one-month period.

Stereotronics Electric Sound Equipment. Cincinnati, Ohio: South-Western Publishing Co., 1972.

This is a one-month complete cycle practice set in which journals, ledgers, and papers are supplied. Transactions are supported by source documents.

Village Garden Center: A Pegboard Payroll System. Agincourt, Ont.: Gage Educational Publishing, 1978.

This write-it-once accounting system provides experience in preparing payroll records using a pegboard and no-carbon-required forms. Different types of situations are presented so that the student may experience a variety of realistic situations.

Weaver, D. H.; Hanna, J. M.; and Freeman, M. H. *Sun-n-Ski: An Accounting Simulation.* New York: McGraw-Hill, 1977.

This simulation is suitable for use by five to nine students after the complete accounting cycle for a merchandising business has been studied. Included are realistic source documents, all necessary working papers, an orientation cassette, an employee's handbook, and employer's manual. In addition to making accounting entries, the student is required to make decisions on the management cases included in the simulation.

Weaver, D. H.; Freeman, M. H.; Hanna, J. M.; Kahn, G.; and Beers, W. L. *Allen Electronic Service.* Canadian ed. Scarborough, Ont.: McGraw-Hill Ryerson, 1974.

Designed for use by students of introductory accounting, this practice set utilizes a two-column journal and a single ledger throughout. The student is exposed to realistic situations through the use of source documents, a cheque book, and a petty-cash book.

Weaver, D. H.; Hanna, J. M.; Freeman, M. H.; Brower, E. B.; and Smiley, J. M. *Home Heating Company, Accounting Application.* 3rd ed. New York: McGraw-Hill, 1978.

This is an accounting application for a large merchandising business which includes subsystems for cash receipts, cash payments, purchases, sales, and payroll, and procedures for bad debts, depreciation, accruals, and deferrals. Source documents and working papers are included. A key is available.

Simulation Game

The Business Game. Canadian Institute of Chartered Accountants, 1969.

This is a computerized simulation game designed to introduce students to the functions of management, planning, control, and decision-making in a large merchandising business. To supplement the game, the Institute of Chartered Accountants provides free of charge the services of one of its local members; the professional accountant acts as adviser, resource person, and motivator.

U. S. PUBLISHERS AND THEIR CANADIAN REPRESENTATIVES*Addison-Wesley:*

Addison-Wesley (Canada)
P.O. Box 580
36 Prince Andrew Place
Don Mills, Ont.
M3C 2T8 (416) 447-5101

Harcourt Brace Jovanovich:

Longman Canada
55 Barber Greene Rd.
Don Mills, Ont.
M3C 2A1 (416) 444-7331

Harper & Row:

Fitzhenry & Whiteside
150 Lesmill Rd.
Don Mills, Ont.
M3B 2T5 (416) 449-0030

Houghton Mifflin:

Houghton Mifflin Canada
150 Steelcase Rd. West
Markham, Ont.
L3R 1B2 (416) 495-1755

McGraw-Hill:

McGraw-Hill Ryerson
330 Progress Ave.
Scarborough, Ont.
M1P 2Z5 (416) 293-1911

Prentice-Hall:

Prentice-Hall of Canada
1870 Birchmount Rd.
Scarborough, Ont.
M1P 2JF (416) 293-3621

South-Western Publishing Co.:

Gage Educational Publishing
164 Commander Blvd.
Agincourt, Ont.
M1S 3C7 (416) 293-8141



