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ABSTRACT

The results of two surveys that were conducted to determine the feasibility of starting programs in (a) Banking, Finance and Credit, and (b) Material Management at William Rainey Harper College are provided. The surveys were made of (a) all banks and savings and loan institutions in the north and western suburbs and downtown Chicago, and (b) 531 companies that had one or more employees who were members of one of the professional societies in the general field of material management in the Chicago area. The results are summarized as to the following: I. Programs in Banking, Finance and Credit--institutional characteristics, number of employees who would be encouraged to enroll in programs, preferred time for classes, type of response to the proposed program, most significant courses proposed, and suggestions as to courses to be added; and II. Material Management--type of initial response to proposed program, courses believed to be most significant, courses with little value, convenient time period for employees to take courses, job area of employees who would be encouraged to enroll in the program, sections that would experience the most trouble in providing enrollees, levels at which employees would be, educational goals for those enrolled, tuition reimbursement program, and possible workshops or seminars that might be offered. Appendixes provide correspondence related to the surveys, copies of the survey instruments, proposed curricula, and course descriptions. (DB)

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**SURVEY OF NEEDS FOR EDUCATIONAL PROGRAMS IN BANKING, FINANCE AND CREDIT
[and] SURVEY OF NEED FOR EDUCATIONAL PROGRAMS IN MATERIAL MANAGEMENT**

John A. Lucas, Director and Charles F. Falk, Business Division Chairman

**William Rainey Harper College
Office of Planning & Research**

JC 740 020

SURVEY OF NEEDS FOR EDUCATIONAL PROGRAMS IN BANKING, FINANCE AND CREDIT

RESEARCH REPORT SERIES VOLUME IV, Number 18
June 11, 1973

**UNIVERSITY OF CALIF.
LOS ANGELES**

JAN 18 1974

**CLEARINGHOUSE FOR
JUNIOR COLLEGE
INFORMATION**

In order to study the feasibility of starting a program in Banking, Finance and Credit and in order to estimate the size of the program, a survey was made of all Banks and Savings and Loan Institutions in the north and western suburbs and downtown Chicago. Along with the questionnaire, all institutions received a copy of the proposed curriculum. The material sent is shown in the appendix. The response rates received in the survey are shown below.

<u>Institution</u>	<u>Number in Sample</u>	<u>Number Responding</u>	<u>Percent Responding</u>
Suburban Banks	67	27	40.3
Suburban Savings & Loan	37	15	40.5
Loop Banks	13	3	23.1
TOTAL	115	45	39.1

In order to estimate the number who would enroll in the program, it is necessary to spread the educational demands over a five year period to allow for adequate turnover and to prevent saturating the market. The estimate is determined in the following way:

<u>Educational Goals Institutions Want Their Employees To Engage In</u>	<u>Number of Employees Who Would Now Be Encouraged</u>	<u>Time Period Required</u>	<u>Divided to Spread Over Five Years</u>	<u>Estimated Number of Employees Enrolled Each Year</u>
A few courses	189	1 year	5	38
Certificate	100	2½ years	2	50
Associate Degree	56	5 years	1	56
TOTAL	345			144

Therefore, it could be conservatively estimated that 144 students would enroll each semester taking two three-hour courses amounting to 58 FTE per semester. It must be emphasized that this is a conservative estimate as the following three additional sources may provide an even greater enrollment.

- (1) Employees of suburban institutions who did not respond to the survey.
- (2) Employees of loop banks who live in the northwest suburbs. Three loop banks indicated they were interested in the program but could not estimate the number of employees who would enroll.
- (3) Non-bank and Savings & Loan employees who are interested in entering the field or who are just interested in taking these courses as electives.

In general, 81 percent of the institutions who responded were enthused about the program. The respondents for the most part felt Monday, Tuesday and Thursday nights would be the most convenient and popular times to conduct these courses. Principles of Bank Operations was rated as the most significant course offered while Negotiable Instruments and Analysis of Financial Statements also rated highly. A few institutions felt there should be a course offered which was more specifically oriented toward Savings and Loan institutions. The detailed results follow.

SUMMARY OF RESULTS

SUMMARY OF SURVEY OF NEED FOR EDUCATIONAL PROGRAMS IN BANKING, FINANCE AND CREDIT

Institutional Characteristics

	<u>Suburban Banks</u>	<u>Savings & Loans</u>	<u>Total</u>
Number reporting employees	15	12	27
Number of clerical employees	1240	147	1387
Average per institution	44	12	30
Number of middle management	339	88	427
Middle management per institution	14	7	11
Total employees	1574	235	1814
Employees per institution	58	19	41
Number reporting resources	23	12	35
Total resources (millions)	1279	632	1911
Resources per institution (millions)	50	54	52

Number of employees who would be encouraged
to enroll at Harper in the following programs

<u>Program</u>	<u>Suburban Banks</u>	<u>Savings & Loans</u>	<u>Total</u>
Few courses	147	42	189
One year certificate	85	15	100
Two year associate degree	43	13	56
	<u>275</u>	<u>70</u>	<u>345</u>
Number responding	27	15	42
Number in suburban sample	67	37	104

Preferred time for classes

	<u>Suburban Banks</u>	<u>Savings & Loans</u>	<u>Total</u>
Monday evening	22	9	31
Tuesday evening	23	7	30
Thursday evening	21	6	27
Wednesday evening	16	1	17
Friday evening	12	1	13
Tuesday late afternoon	5	3	8
Wednesday late afternoon	7	0	7
(All other times mentioned three times or less)			

Response to Harper's proposed program

<u>Response</u>	<u>Suburban Banks</u>	<u>Savings & Loans</u>	<u>Total</u>
Very enthused	12	1	13
Enthused	11	6	17
Neutral	1	0	1
Have questions	2	1	3
Not relevant	0	4	3

Most significant courses proposed

<u>Courses</u>	<u>Suburban Banks</u>	<u>Times Mentioned</u>		<u>Total</u>
		<u>Savings & Loans</u>		
AIB 101 Principles of Bank Operations	18	3		21
AIB 217 Negotiable Instruments	12	3		15
AIB 215 Analyzing Financial Statements	8	3		11
BUS 211 Business Law	5	3		8
ENG 130 Business Writing	3	4		7
SPE 101 Fundamentals of Speech Communication	3	2		5
ECON 210 Money and Banking	6	1		7
AIB 212 Home Mortgage Lending	1	4		5
BUS 160 Principles of Supervision	3	3		6
BUS 101 Accounting I	8	2		10
(All other courses mentioned three or fewer times)				

No course was mentioned more than once as being of little value.

Courses suggested to be added

Courses specifically for Savings & Loan Institutions - 3
Course on short term credit
Commerical lending
Psychology course

APPENDIX



April 16, 1973

Dear Sir:

In cooperation with an advisory group of bankers and savings and loan association executives, Harper College is developing new college credit-based curricula in Banking, Finance, and Credit. We solicit your reaction to this proposal in terms of its content and in terms of the likely response to the program by people in your organization toward whom it is directed. We request that you record your reactions on the enclosed brief questionnaire.

The college and the advisory committee perceive the program as being in-service training primarily designed for those already employed in the banking field and who are in, or aspire to, first and/or middle level bank management positions. Additionally, the program is believed to be suitable as pre-service training for recent high school graduates who may be considering a banking career.

Though proposed programs are initially directed toward present or future bank employees, it is believed that much of the curriculum is general and thus has application toward the educational needs of saving and loan association field as well. If there is sufficient interest in proposed program among savings and loan association executives responding to our questionnaire, an effort will be made to include more courses in the curricula directly pertinent to that segment of the financial industry.

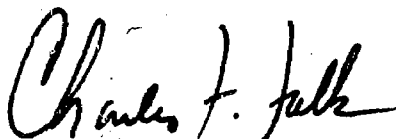
An advantage of the Harper program will be the opportunity to acquire the technical skills needed in the financial field and to earn college credit at the same time. As you can see from the enclosures, the principal program is a two-year curriculum leading to the award of an Associate in Applied Science degree. Also outlined are two less comprehensive and shorter term "certificate" programs which are completely compatible with the two-year degree program. In reality, many students may wish to pursue the shorter certificate programs as an initial educational objective and then continue on to complete the full associate degree curriculum.

Negotiations are under way with the Chicago Chapter of the American Institute of Banking which may result in Harper students receiving credit toward the various AIB certificates as well as college credit applicable toward the certificates or associate degree offered by Harper College. A similar contact has not been made with the American Savings and Loan Institute. This group is not immediately interested in a cooperative venture, but indicated that this may be a possibility in the near future.

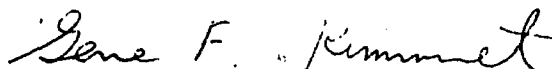
In addition to the curricula, we have enclosed catalogue descriptions of each course that would be part of the total program for your review. Any reaction you would care to offer beyond what is asked for in the questionnaire would be appreciated as well.

Thank you very much for your cooperation.

Sincerely yours,



Charles F. Falk, Chairman
Business Division



Gene F. Kimmet, Assistant Professor
Acting Coordinator, Banking, Finance,
and Credit Program

Enclosure

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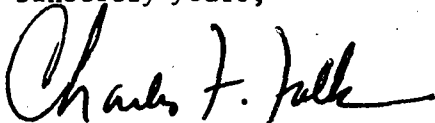
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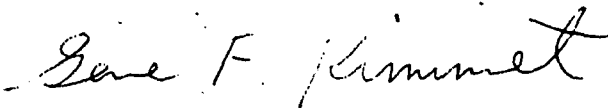
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Sincerely yours,



Charles F. Falk, Chairman
Business Division



Gene F. Kimmet, Assistant Professor
Acting Coordinator, Banking, Finance
and Credit Program

Enclosure

PROPOSED 15-HOUR CERTIFICATE PROGRAM

BASIC BANKING CERTIFICATE

An organized sequence of courses designed to provide basic preparation for and orientation to the banking and finance field. Suitable for those working in or preparing for entry level positions in financial houses.

<u>COURSE NO.</u>	<u>DESCRIPTION</u>	<u>HOURS</u>
AIB 101	Principles of Bank Operations	3
BUS 101	Accounting I	3
BUS 150	Business Math	3
ECO 200	Introduction to Economics	3
ENG 101	English Composition	3
		<u>15</u>

PROPOSED 30-HOUR CERTIFICATE PROGRAM

BANKING, FINANCE, AND CREDIT CERTIFICATE

A program of in-service education for those employed in financial houses who seek to enhance their practical experiences with applied theory and improved communications skills. Suitable for supervisory and public contact personnel. Entire sequence can be applied toward the Associate degree program in Banking, Finance, and Credit if the student wishes further breadth and depth.

<u>COURSE NO.</u>	<u>DESCRIPTION</u>	<u>HOURS</u>
FIRST SEMESTER		
AIB 101	Principles of Bank Operations	3
BUS 101	Accounting I	3
BUS 111	Introduction to Business Organization	3
ECO 200	Introduction to Economics	3
ENG 101	English Composition	<u>3</u>
		15
SECOND SEMESTER		
AIB 215	Analyzing Financial Statements	3
AIB	Elective	3
BUS 211	Business Law	3
ECO 210	Money and Banking	3
ENG 130	English Business Writing	<u>3</u>
		15
		TOTAL
		30

LEADING TO AN ASSOCIATE DEGREE

PROPOSED CURRICULUM
BANKING, FINANCE, AND CREDIT

A two-year program leading to an Associate in Applied Science degree. It is designed for those currently employed in, or seeking employment in banks, savings and loan associations, or in other financial oriented enterprises. Emphasis in the curriculum is given to developing competencies required for operating and middle level management positions in the finance field.

FIRST YEAR

<u>First Semester</u>	<u>Second Semester</u>
AIB 101 Princ. of Bank Operations. 3	BUS 101 Accounting I. 3
BUS 111 Intro. to Bus. Organization 3	SPE 101 Fundamentals of Speech Communication 3
ENG 101 Composition 3	AIB 217 Negotiable Instruments 3
BUS 150 Business Math. 3	ECO 115 Consumer Economics 3
Emphasis Elective 3	ENG 105 Interviewing and Listening Skills 1
<u>15</u>	Emphasis Elective 3
	<u>16</u>

SECOND YEAR

<u>First Semester</u>	<u>Second Semester</u>
AIB 215 Analyzing Financial Stmtts. 3	AIB 219 Installment Credit. . . 3
ENG 130 Business Writing 3	BUS 211 Business Law 3
ECO 200 Introduction to Economics . 3	ECO 210 Money and Banking. . . 3
Humanities Elective 3	Emphasis or General Electives
Emphasis or General Elective 3	(2) . 6
<u>15</u>	<u>15</u>

TOTAL HOURS: 61

A major emphasis field may be achieved by utilizing the following specific courses as electives:

ACCOUNTING

BUS 102 Accounting II 3
ECO 201 Principles of Economics . 3
AIB 216 Bank Auditing and Internal Control. 3
Two Electives 6
<u>15</u>

LENDING

AIB 212 Home Mortgage Lending 3
AIB 218 Credit Administration . 3
Three Electives 9
<u>15</u>

Major emphasis electives, continued:

MANAGEMENT

AIB 220 Bank Management	3
BUS 160 Principles of Supervision	3
BUS 270 Principles of Management	3
Two Electives	<u>6</u>
	15

SECRETARIAL

SEC 122 Intermediate Typing	2
SEC 126 Intermediate Shorthand	3
SEC 131 Business Machines	2
SEC 236 Secretarial Procedures	2
Two Electives	<u>6</u>
	15

REAL ESTATE

RES 120 Principles of Real Estate	3
RES 122 Real Estate Appraisal I	3
RES 123 Real Estate Law	3
Two Electives	<u>6</u>
	15

APPROVED ELECTIVES:

- AIB 117 Bank Public Relations and Marketing
- AIB 211 Bank Accounting Systems
- AIB 212 Home Mortgage Lending
- AIB 213 Trust Functions and Services
- AIB 216 Bank Auditing and Internal Control
- AIB 218 Credit Administration
- AIB 220 Bank Management
- AIB 239 Installment Credit II
- AIB 249 Credit Seminar

- BUS 102 Accounting II
- BUS 160 Principles of Supervision
- BUS 218 Introduction to Finance
- BUS 225 Applied General Statistics
- BUS 265 Personnel Management
- BUS 270 Principles of Management
- RES 120 Principles of Real Estate
- RES 122 Real Estate Appraisal I
- RES 123 Real Estate Law
- RES 124 Real Estate Finance
- DPR 101 Introduction to Data Processing
- LTE 202 Estate Planning and Probate
- PSY 101 Introduction to Psychology
- SEC 122 Intermediate Typing
- SEC 126 Intermediate Shorthand
- SEC 131 Business Machines
- SEC 236 Secretarial Procedures
- ECO 201 Principles of Economics

COURSE DESCRIPTIONS
(Required Courses)

AIB 101 Principles of Bank Operations 3 cr.

A panoramic view of the internal operations of a typical bank. It is not intended that systems be covered in a definitive manner but rather the emphasis is on the principles involved which in fact are applicable to all banks regardless of size. The course has proven to be a sound foundation for newcomers to banking regardless of sex, age or prior academic accomplishments. Banking is increasingly dependent upon personnel who have the broad perspective so necessary for career advancement.

AIB 215 Analyzing Financial Statements 3 cr.

A fourth edition of the textbook is used for this course and is organized into two main sections: Characteristics of Financial Statements and Financial Statement Analysis. The first section serves as a useful review of basic accounting principles for those students who have studied accounting. For those who have not, this section provides the minimum accounting background necessary for profitable study of financial statement analysis.

AIB 217 Negotiable Instruments 3 cr.

Formal requirements...form and content...interpretation...delivery, negotiation, and endorsement...holder in due course...presentment...notice of dishonor and protest...acceptance and certification...discharge...overdue paper...checks...various negotiable instruments...letters of credit...non-negotiable instruments...quasi-negotiable documents...selected sections of uniform acts...uniform negotiable instruments law.

AIB 219 Installment Credit 3 cr.

In this course, the techniques of installment lending are presented concisely. Emphasis is placed on establishing the credit, obtaining and checking information, servicing the loan, and collecting the amounts due. Each phase of a bank's installment credit operation should be carefully scrutinized to be certain that the most efficient methods are employed, for only through an efficient operation can a bank maximize its profits on this particular kind of credit. Other topics discussed are inventory financing, special loan programs, business development and advertising, and the public relations aspect of installment lending.

Course Descriptions, Continued

BUS 101 Accounting I 3 cr.

Basic accounting and business concepts, principles of recording transactions, special ledgers and statements, end-of-period adjustments, and financial statement preparation.

BUS 111 Introduction to Business Organization 3 cr.

Nature of business and environment in which it operates. Forms of business ownership; introduction to operative and facilitating facets of business operation: management, marketing, accounting, statistics, business law, finance, investments, insurance, and labor-management relations.

BUS 150 Business Math 3 cr.

Arithmetic as a tool of business. Topics include fractions, decimals, and percentages, computations of interest, bank discounts, depreciation, commissions, compound interest, payrolls and taxes, and graphs and charts design.

BUS 211 Business Law I 3 cr.

A general history of the sources of the law, an outline of the Judicial System followed by the Basic Principles of Business Law including contracts, agency and employment, and property.

ECO 115 Consumer Economics 3 cr.

Consumer practices with emphasis on buying of investments, shelter, insurance and basic commodities.

ECO 200 Introduction to Economics 3 cr.

A descriptive rather than a quantitative approach to the study of economics. Major topic matter covers economic history, the elements of macro-economics, micro-economics and a comparative look at other economic systems. Specifically designed for students in career-vocational curricula.

Course Descriptions, Continued

ECO 216 Money and Banking 3 cr.

Stresses the practical aspects of money and banking and emphasizes the basic monetary theory needed by the banking student to apply his knowledge to his particular job. Historical treatment has been kept to a minimum. Emphasis is also placed on such problems as economic stabilization, types of spending, the role of gold, limitations of central bank control, government fiscal policy, balance of payments, and foreign exchange, showing their repercussions on the banking industry in affecting yield curves and the structuring of portfolios.

Prerequisite: ECO 200 or ECO 201

ENG 101 Composition 3 cr.

A course in college composition emphasizing the organization and development of expository prose. Introduction to the critical reading of selected essays.

Prerequisite: Satisfactory score on a placement test or ENG 099.

ENG 105 Interviewing and Listening Skills 1 cr.

A course focusing on the unique demands of interpersonal communication. The student will examine interview types, participate in model interview situations and complete a programmed course in cognitive listening skills.

ENG 130 Business Writing I 3 cr.

Formal and psychological aspects of business correspondence. Introduction to various kinds of business letters, memoranda, and reports. Improvement of grammar, spelling and word usage.

SPE 101 Fundamentals of Speech Communication 3 cr.

Theory and practice of oral communications. Development of poise, confidence, and skill in speech organization and delivery. Emphasis on frequent speaking, development of standards of criticism, and selection and organization of material.

Course Descriptions, Continued

AIB 218 Credit Administration 3 cr.

This course, directed toward the executive level, concerns itself partly with a statement and a discussion of factors influencing and determining loan policy. Methods of credit investigation and analysis, credit techniques, specific credit problems, and regular as well as unusual types of loans are discussed.

AIB 220 Bank Management 3 cr.

This course is based on the second edition of the text that presents new trends which have emerged in the philosophy and practice of management. The study and application of the principles outlined provide new and experienced bankers with a working knowledge of bank management. Since case study is becoming well established as an effective management learning technique, this text also introduces the use of cases as a new element.

AIB 239 Installment Credit II (advanced) 3 cr.

The analysis of installment lending operations, various types of rates and their correlation to simple interest yield, an analysis of the cost factors of installment lending, the function of cost of money as it affects yield and rates. Also investigates legal aspects and reports to top management. Prerequisite: AIB 219 Installment Credit I

AIB 249 Credit Seminar 3 cr.

A Senior study group restricted to 20 students nominated by management. A course relating functions of a credit department to those of the loan division of a commercial bank. Course utilizes case materials drawn from actual experience. Special problems utilizing budget basis for bank loans. Prerequisite: Heavy experience in credit department duties and nomination by banking institution.

BUS 102 Accounting II 3 cr.

Continuation of BUS 101 with emphasis on partnerships, corporations, branches, and departments. Interpretation of financial statements, basic valuation and cost concepts, reporting of manufacturing costs. Prerequisite: BUS 101

Course Descriptions, Continued

BUS 160 Principles of Supervision 3 cr.

An introductory course dealing with the responsibilities of the first or second echelon supervisor in either the industrial or administrative environment. Leadership qualities, human relations skills, motivation, communications, training techniques, and problems of the work group are discussed.

BUS 218 Introduction to Finance 3 cr.

Methods of financing business enterprises and their relationships to personal and company investment policies. Prerequisite: BUS 111 & BUS 101.

BUS 225 Applied General Statistics 3 cr.

An introduction to both descriptive and inductive statistics. Collection of data; frequency distributions and measures of data; frequency distributions and measures of location (mean, median, mode); measures of variation; probability, theoretical distributions including sampling distributions, estimation, tests of hypotheses; correlation, regression analysis and index numbers; time series.

Prerequisite: Any mathematics course numbered 100 or above or consent of instructor.

BUS 265 Personnel Management 3 cr.

Personnel problems and labor relations. Employment techniques, wages and hours, job evaluation, training, rating, collective bargaining, pensions and fringe benefits. Prerequisite: BUS 270 or consent of instructor.

BUS 270 Principles of Management 3 cr.

Presents the theory and major functions of management and describes the role of the manager. Major concepts in organization are developed along with an understanding of the decision-making process and consideration of the human factor in management. Prerequisite: BUS 111 or BUS 160.

Course Descriptions, Continued

RES 120 Principles of Real Estate

3 cr.

Fundamental principles of real estate for: the real estate practitioner; those seeking to qualify for real estate licensing examination; the occasional participant in the real estate market--the buyer, seller or owner of real estate; and the person who has contact with the business in his work with financial institutions. Subject matter includes the nature and economic characteristics of real estate and its ownership, titles, contracts, market values, brokerage, selling, development, taxation, appraisal, financing, and licensing laws.

RES 122 Real Estate Appraisal I

3 cr.

A course covering the functions and purposes of appraisal, designed to examine the nature of real property value, the various functions and methods of estimating values with emphasis on residential market.

Prerequisite: RES 120 or consent.

RES 123 Real Estate Law

3 cr.

Examination of legal aspects of the real estate business, including contracts, interests in land, transactions, brokerage, leasing, closings, zoning, taxation and the legal forms and remedies relative thereto.

Prerequisite: RES 120 or consent.

RES 124 Real Estate Finance

3 cr.

Analysis of the various financial aspects of owning, buying, and marketing all types of real estate, including mortgages, construction loans, leasing, sale and leaseback, foreclosure, trading, governmental programs, and contracts, and taxation. Prerequisite: RES 120 or consent.

DPR 101 Introduction to Data Processing

3 cr.

The history of data processing, scope and significance of data processing, mechanical data processing, punched card unit records, punched card machine functions, electronic data processing equipment, and basic computer concepts.

Course Descriptions, Continued

LTE 202 Estate Planning and Probate

3 cr.

Examination of company forms or wills and trusts. Principles of law application to each, the organization and jurisdiction of appropriate probate court, administration of estates, and review of applicable estate and inheritance taxes. Prerequisite: LTE 101 Introduction to Legal Technology.

PSY 101 Introduction to Psychology

3 cr.

Human behavior with reference to perception, learning, individual differences, intelligence, and personality. Developmental method stressed rather than experimental. Reference made to daily life and everyday problems.

SEC 122 Intermediate Typing

2 cr.

Development of production work in typing manuscripts, business letters, forms and tables.
Prerequisite: SEC 121 (Elementary Typing) with a grade of "C" or one year of high school typing. Minimum speed of 40 net words per minute.

SEC 126 Intermediate Shorthand

3 cr.

Continued development of skill and speed dictation with emphasis on vocabulary development, mechanics of English, and transcription techniques. Prerequisite: SEC 125 (Elementary Shorthand) or equivalent, SEC 121 or equivalent, and ENG 101 (Composition), with a grade of "C." If advanced placement is given in shorthand, prior or concurrent enrollment in ENG 101 is required.

SEC 131 Business Machines

2 cr.

Development of skill necessary to operate the 10-key adding machines, rotary calculator, printing calculator, and the electronic calculator.

SEC 236 Secretarial Procedures

2 cr.

Secretarial responsibilities in the office, grooming, human relations, office ethics and business etiquette, exploring job opportunities, and interviewing. Prerequisite: Consent of instructor.

Course Descriptions, Continued

ECO 201 Principles of Economics I

3 cr.

Economic problems faced by our society. Examination of resource allocation, national income, economic development, from a macro-economic approach.

SURVEY OF NEED FOR EDUCATIONAL
PROGRAMS IN BANKING, FINANCE & CREDIT

Number of employees in your institution Clerical (tellers & bookkeepers) _____ Middle Management (head tellers, head bookkeeper, asst. cashier, loan officer, etc.) _____ Total _____	Total Resources of your institution _____
--	--

Please examine the proposed curriculum and consider carefully the employees in your institution for whom this might be appropriate and then answer the following questions.

1. What kind of educational goals would you encourage for clerical level employees enrolling in the Harper program? Check (✓) one
 - A. Primarily to take a few specific courses
 - B. Primarily for the one year certificate
 - C. A combination of A & B above
 - D. Primarily for the two year associate degree
 - E. A mixture of A, B & D

2. What kind of educational goals would you encourage for middle management level employees? Check (✓) one
 - A. Primarily to take a few specific courses
 - B. Primarily for the one year program
 - C. A combination of A & B above
 - D. Primarily for the two year associate degree
 - E. A mixture of A, B, & D

3. Indicate the number of employees in each category whom you or your institution would encourage to enroll in Harper's proposed new program in the next year
 - A. Clerical (tellers and bookkeepers)
 - B. Middle management (head teller, head bookkeeper, assistant cashier, loan officer, etc.)

4. What would be the most convenient time for appropriate employees in your institution to take courses in the proposed program? Check (✓) the three most convenient times.

	Early Morning <u>7-9 AM</u>	Late Morning <u>9-12 AM</u>	Early Afternoon <u>12-3 PM</u>	Late Afternoon <u>3-6 PM</u>	Evening
Monday					
Tuesday					
Wednesday					
Thursday					
Friday					
Saturday					

5. What is your initial response to this proposed program in Banking, Finance and Credit? Check (✓) one.

_____ A. I am very enthused and would encourage certain employees in my institution to enroll in this program.

_____ B. I am interested and would probably talk to some of my employees about the proposed program.

_____ C. I am neutral .

_____ D. I have many questions and would like more detailed information about the program or I would like to talk to someone at Harper.

_____ E. I don't think the program would apply to anyone at this institution .

6. Which do you think are the most significant courses in the proposed program with regard to your institutions needs? _____

7. Are there courses listed in the proposed program which you feel would be of little value? If so describe. _____

8. Are there courses which you would like to see added to the program? If so describe. _____

9. List the names and title of any person you know who would be qualified and interested in serving as an instructor or guest lecturer in the proposed program.

Name _____

Title _____

Company and address _____

Major field of interest _____

Name and title of person who filled out this form.

Name _____

Title _____

SURVEY OF NEED FOR EDUCATIONAL PROGRAMS IN MATERIAL MANAGEMENT

RESEARCH REPORT SERIES VOLUME IV, Number 19
June 25, 1973

In considering a new program in Material Management at Harper, an advisory committee was formed in the summer of 1972. This committee was composed of interested representatives from the following four Professional Societies: American Production and Inventory Control Society - Chicago Chapter, International Material Management Society - Chicago Chapter, Purchasing Management Association of Chicago, and the National Council for Physical Distribution Management. This committee met for a year designing the curriculum and also giving direction for a market analysis of the proposed new program to determine its feasibility. The committee worked very closely with the authors in designing the instrument, shown in appendix, and in determining the market analysis target population.

The survey population consisted of 531 companies which were identified as having at least one employee who was a member of one of the professional societies in the general field of material management in the Chicago area. The survey instrument and a copy of the proposed curriculum was sent out to the identified professional plus the president. After a postcard reminder three weeks later, 163 replies were received for a response rate of 30.7 percent.

One of the primary questions to be answered by the survey was the size of the program. This question was answered by the following analysis:

ENROLLMENT FORECAST

Total number of present employees who would be encouraged to enroll - 1,213

	<u>Encouraged to enroll for a few courses (6 credit hrs.)</u>	<u>Encouraged to enroll in a Certificate Program (17 credit hrs.)</u>	<u>Encouraged to enroll in a Associate Degree Program (62 credit hrs.)</u>
Percent	43.4	23.3	33.3
Estimated number of present employees	526	283	404
On a five year turn around the expected number to enroll each of ten semesters for six credit hours	X $\frac{6}{60}$ 53	X $\frac{17}{60}$ 80	X $\frac{62}{60}$ 417
Total part-time expected each semester	550	Resulting FTE expected 220	
New graduates of program which would be hired	(146)		
Estimated number of full-time students assuming a five year turn around time each semester	29	Resulting FTE expected 29	
Total heads expected in program each semester	579	Resulting FTE expected 249	

This forecast is on the conservative side for the following reasons:

- (a) It was assumed that employees from companies not responding would not enroll. However, some employees from this 70 percent probably could be expected to enroll.
- (b) Experience from other programs has shown some students will enroll in the program for general interest or for an elective.
- (c) Some of these employees, encouraged to take only a few courses, may continue to take more courses on their own.

In terms of demand for specific courses in the proposed program, there were several indicators in the survey. By far the biggest sub-groups of employees represented production control. A distant second was inventory control. However, inventory control represented the area for which companies had the most trouble providing training. Production control was next in line. Looking at courses which were rated as most significant, inventory control was far in front with forecasting material requirements and production control second and third. Courses which were rated as insignificant were non-material management courses along with Practice of Regulatory Agencies.

The level of employees who would enroll would, for the most part, range between entry level management and middle management with more from entry level management. Half of these employees who would enroll would get full tuition reimbursement plus another quarter would get partial reimbursement. By far, most employees prefer weeknights with a sizeable minority opting for Saturday morning.

About 75 percent of the respondents indicated they were very enthused about the program. Thirteen companies indicated that they had classroom space and would be interested in holding classes at their company location. Another 15 companies would prefer their employees attend classes at nearby companies.

In addition, a number of workshops and seminars were suggested. The detailed results follow.

SUMMARY RESULTS

<u>Initial Response to Proposed Program in Material Management</u>	<u>Number</u>	<u>Percent</u>
I am very enthused and would encourage certain employees in my organization to enroll in this program.	122.0	75.0
I am neutral.	14.5	9.0
I have many questions and would like more detailed information about the program or I would like to talk to someone at Harper.	6.5	4.0
I don't think the program would apply to anyone in this organization.	11.0	7.0
No answer.	9.0	5.0
	163.0	100.0

<u>Courses of Most Significance</u>	<u>Nominations</u>
MAT 122 Inventory Control for Material Managers	59
MAT 226 Forecasting-Material Requirements	38
MAT 120 Production Control Concepts	38
MAT 121 Fundamentals of Physical Distribution	30
MAT 124 Material Handling and Packaging	28
MAT 221 Distribution Center Operations	26
MAT 101 Fundamentals of Material Management	25
MAT 220 Advanced Production Control	25
MAT 228 Finance for Material Managers	22
BUS 249 Purchasing	21
MAT 224 Advanced Material Handling and Warehousing	19
DPR 101 Introduction to Data Processing	12
MAT 123 Transportation for Materials Managers	11
All group I electives important	11
MAT 223 Transportation Law	10
BUS 101	
& 102 Accounting	9
DPR 203 Systems Analysis and Design I	8
BUS 160 Principals of Supervision	7
All group II electives important	7
PSY 145 Psychology in Business and Industry	6
BUS 270 Principles of Management	5
BUS 225 Applied General Statistics	5
BUS 274 Industrial Management	4
BUS 111 Introduction to Business Organization	4
MET 108 Manufacturing Processes and Materials	3
BUS 211 Business Law	3
MAT 225 Practice of Regulatory Agenices	2
Composition	2
ECO 200 Introduction to Economics	2
Customer Service	1

Courses of Little ValueNominations

MAT 225	Practice of Regulatory Agencies	9
MAT 120	Production Control Concepts	8
MAT 120	Production Control Concepts	7
MET 108	Manufacturing Processes & Materials	5
MAT 259	Advanced Purchasing	5
BUS 249	Purchasing	4
PSY 145	Psychology in Business and Industry	4
	Humanities and non-business electives	4
BUS 211	Business Law	4
MAT 220	Advanced Production Control	4
DPR 101	Introduction to Data Processing	3
BUS 111	Introduction to Business Organization	3
MAT 228	Finance for Materials Managers	3
BUS 101	Accounting	2
BUS 245	Principles of Marketing	2
BUS 225	General Applied Statistics	2
MAT 221	Distribution Center Operations	2
MAT 101	Fundamentals of Material Management	1
MAT 270	Principles of Management	1
MAT 223	Transportation Law	1
ECO 200	Introduction to Economics	1
MAT 124	Material Handling and Packaging	1
BUS 160	Principles of Supervision	1
MAT 224	Advanced Material Handling & Warehousing	1
MAT 122	Inventory Control for Material Managers	1
	All courses (they are too general)	1

Convenient Time Period for Employees to Take Courses

	<u>Number</u>	<u>Percent</u>
--	---------------	----------------

Week nights	127	68.0
Saturday mornings	41	22.0
Late week day afternoons 4:00 - 6:00 PM	16	9.0
Early week day morning 7:00 AM	<u>2</u>	<u>1.0</u>
	186	100.0

Job Area of Employees Encouraged to Enroll in Harper's Proposed Material Management Program

Production control	282.5	23.0
Inventory control	215.0	18.0
Purchasing	188.0	15.0
Material handling and packaging	155.5	13.0
Distribution and warehousing	154.5	13.0
Traffic and transportation	116.5	10.0
Executive management	84.0	7.0
Other	<u>17.0</u>	<u>1.0</u>
	1213.0	100.0

Areas in Organizations with the Most Trouble
Providing Training or Trained Personnel

	<u>Number</u>	<u>Percent</u>
Inventory control	70	24.0
Production control	55	19.0
Purchasing	43	15.0
Distribution and warehousing	43	15.0
Material handling and packaging	35	12.0
Traffic and transportation	35	12.0
Other	<u>11</u>	<u>3.0</u>
	292	100.0

Level at Which Previously Mentioned Employees Would Be

Clerical primarily	7.8	6.0
Lower or entry level management primarily	62.8	46.0
Middle management primarily	33.0	24.0
Other	3.4	2.0
A mixture of levels	<u>31.0</u>	<u>22.0</u>
	138.0	100.0

Educational Goals Encouraged for Those Enrolling at Harper

Primarily to take a few specific courses	41.5	31.0
Primarily for the one year certificate program	14.5	11.0
Primarily for the two year associate degree	29.5	21.0
A mixture of educational objectives	<u>50.5</u>	<u>37.0</u>
	136.0	100.0

Tuition Reimbursement Program

Yes, it would cover full tuition.	68.0	51.0
Yes, it would cover partial tuition.	35.5	27.0
Yes, but it would be applicable to only some employees.	10.5	8.0
I am not sure.	10.0	8.0
No	<u>9.0</u>	<u>6.0</u>
	133.0	100.0

Fifty-five companies indicated they would hire a total of 146 new graduates from Harper's proposed program.

Thirty-nine indicated they would maybe hire new graduates from the proposed program.

Possible Workshops or Seminars Which Might be Offered to Materials Management People

	<u>Number</u>
Supervisory training	4
Customer service	4
Guest lecturers or experts	4
Materials handling equipment maintenance	3
Material requirements planning	3
Basic computer programming	2
Finance and accounting systems - budgeting	2
Sales - production coordination	2
Bulk material handling systems analysis	1
Human relations	1
Executive development	1
Office management	1
Utilization	1
Internal and external expediting and shop order processing	1
Real estate economics	1
Value analysis	1
Inventory control	1
Philosophy of materials management	1
Materials management performance guidelines	1
National contract buying	1
Manufacturing - engineering	1
Tools and equipment (how and where to use)	1
Warehouse design	1
Control techniques	1

APPENDIX

SURVEY OF NEED FOR AN EDUCATION PROGRAM FOR PERSONS ENGAGED IN MATERIAL MANAGEMENT

Please examine the proposed curriculum for material management and think of employees in your organization who are engaged in material management and then answer the following questions:

1. What is your initial response to this proposed program in Material Management? Check (✓) one.

 A. I am very enthused and would encourage certain employees in my organization to enroll in this program
 B. I am neutral
 C. I have many questions and would like more detailed information about the program or I would like to talk to someone at Harper
 D. I don't think the program would apply to anyone in this organization

2. Which do you think are the most significant courses in the proposed program with regard to your organization's needs?

3. Are there courses listed in the proposed program which you feel would be of little value? If so describe:

4. Check (✓) the most convenient time period for your employees to take courses in this proposed program.

 A. Early weekday mornings 7:00 A.M.
 B. Late weekday afternoons 4:00 - 6:00 P.M.
 C. Weeknights
 D. Saturday mornings

5. Indicate the number of employees by function who you or your organization would encourage to enroll in Harper's proposed material management program.

 A. Purchasing
 B. Traffic & transportation
 C. Inventory control
 D. Production control
 E. Material handling & packaging
 F. Distribution & warehousing
 G. Executive management
 H. Other (specify) _____
 I. If no person in your organization would be encouraged to enroll in Harper's new proposed program please check (✓) here. _____

6. In which functional areas in your organization do you have the most trouble providing training or trained personnel? Check (✓) all those which are appropriate.

- | | |
|--|---|
| <input type="checkbox"/> A. Purchasing | <input type="checkbox"/> E. Material handling & packaging |
| <input type="checkbox"/> B. Traffic & transportation | <input type="checkbox"/> F. Distribution & warehousing |
| <input type="checkbox"/> C. Inventory control | <input type="checkbox"/> G. Other (specify) _____ |
| <input type="checkbox"/> D. Production control | |

7. At what level would most of the previously mentioned employees be? Check (✓) one.

- A. Clerical primarily
 B. Lower or entry level management primarily
 C. Middle management primarily
 D. Other (specify) _____ primarily
 E. A mixture of levels

8. What kind of educational goals would you encourage for those enrolling in Harper's new proposed program? Check (✓) one.

- A. Primarily to take a few specific courses
 B. Primarily for the one year certificate program
 C. Primarily for the two year associate degree
 D. A mixture of educational objectives

9. Do you have a tuition reimbursement program which would be applicable to your materials management employees who might enroll in Harper's proposed new program? Check (✓) one.

- A. Yes it would cover full tuition
 B. Yes it would cover partial tuition
 C. Yes but it would be applicable to only some employees
 D. I am not sure
 E. No

10. If Harper College were to implement this proposed program, and full time non-employed students were enrolled, how many graduates of the two year associate degree program would you hire in your materials management areas during the next year? _____

11. Would your organization be interested in having courses in this proposed program taught in your plant or at your location? Check (✓) one.

- A. Yes we could provide classroom space and at least 15 students per classroom
 B. Our employees would prefer attending classes at a near by company (specify) _____
 C. No they would prefer attending classes on Harper's campus.

12. Are there courses, workshops, seminars or certain experts in the field which you would like to see added to the program? If so describe. _____

13. List the names and title of any person you know who would be qualified and interested in serving as an instructor or guest lecturer in the proposed program.

(Name) _____

(Title) _____

(Company and address) _____

(Major field of interest) _____

If the person who filled out this form is not the one to which the cover letter was addressed, please list your name and title in the company.

May 7, 1973

Dear Sir:

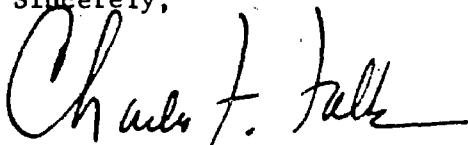
Material management has emerged as a recognized profession within industry and is recognized by various industrial societies and associations. Harper College is cooperating with the National Association for Purchasing Management, American Production and Inventory Control Society, the National Council for Physical Distribution Management and the International Material Management Society in developing a comprehensive educational program covering all phases of material management.

The subjects in this curriculum will embody those management skills and techniques which are inherent in economic procurement, control and handling of material flow from source of supply to and thru manufacturing and/or distribution and on to the customer or consumer. Our interest is in developing various types of programs which will serve not only students seeking the normal credited certificates and degrees but also people in industry who want to improve themselves in one or more areas of the important field of material management.

To help us in better serving you, will you please review the attached curriculum and provide us with your thinking on the attached questionnaire.

If there is a more appropriate person that could respond to this questionnaire, please forward this form to them. A copy of this questionnaire has been sent to your president. Your cooperation will be very much appreciated.

Sincerely,



Charles F. Falk, Chairman
Business Division

Enclosure

May 7, 1973

Dear Sir:

Material management has emerged as a recognized profession within industry and by various industrial societies and associations. Harper College is cooperating with the National Association for Purchasing Management, American Production and Inventory Control Society, the National Council for Physical Distribution Management and the International Material Management Society in developing a comprehensive educational program covering all phases of material management.

The subjects in the curriculum will embody those management skills and techniques which are inherent in economic procurement, control and handling of material flow from source of supply to and thru manufacturing and/or distribution and on to the customer or consumer. Our interest is in developing various types of programs which will serve not only students seeking the normal credited certificates and degrees but also people in industry who want to improve themselves in one or more areas of the important field of material management.

To help us in better serving you, will you please forward this questionnaire to the most appropriate person in your organization. Your cooperation will be very much appreciated.

Sincerely,



Charles F. Falk, Chairman
Business Division

Enclosure

Possible Associate Degree
Program Format

MATERIAL MANAGEMENT

The material management curriculum is designed to provide in-service education for those persons working directly in or in fields allied to material management and physical distribution. Additionally, the program may provide pre-service training for those who may seek or be transferred into jobs within these fields.

First Year

FIRST SEMESTER				SECOND SEMESTER			
BUS	101	Accounting I	3	BUS 102	Accounting II	3	
BUS	111	Introduction to Business Organization	3	ENG	Elective	3	
ENG	101	Composition	3	Mat'l. Mgmt.	Electives	6	
DPR	101	Intro. to Data Processing	3	BUS 270	Princ. of Management	3	
PSY	145	Psychology in Business and Industry	3				15
MAT	101	Intro. to Mat'l Mgmt.	2				
			<u>17</u>				

Second Year

FIRST SEMESTER				SECOND SEMESTER			
BUS	245	Princ. of Marketing	3	Humanities	Elective	3	
ECO	200	Intro. to Economics	3	MAT 228	Finance for Mat'l Managers	3	
BUS	211	Business Law I	3	Mat'l Mgmt.	Electives	9	
Mat'l Mgmt.	Electives		6				15
			<u>15</u>				
TOTAL HOURS FOR DEGREE							62

Material management electives are to be selected from the following list of courses. Selections must be made with the concurrence of the program coordinator or a Business Division counselor.

Group I (Four of the following courses must be taken at some point in their program)

MAT 120	Production Control Concepts	3	
MAT 121	Fundamentals of Physical Distribution	3	
MAT 122	Inventory Control for Material Managers	3	
MAT 123	Transportation for Material Managers	3	
MAT 124	Material Handling and Packaging	3	
BUS 249	Purchasing	3	<u>12 hours</u>

Associate Degree Format, (Continued)

Group II (Two course selections shall be made from the following courses)

MAT 220	Advanced Production Control	3	
MAT 221	Distribution Center Operations	3	
MAT 223	Transportation Law	3	
MAT 224	Advanced Material Handling & Warehousing	3	
MAT 225	Practice of Regulatory Agencies	3	
MAT 226	Forecasting Material Requirements	3	
MAT 259	Advanced Purchasing	3	<u>6 Hours</u>

Group III (One Selection may be made from the following courses)

DPR 203	Systems Analysis and Design I	3	
BUS 225	Applied General Statistics	3	
MET 108	Manufacturing Processes and Controls	3	
BUS 274	Industrial Management	3	
BUS 160	Principles of Supervision	3	<u>3 Hours</u>

Total Electives 21 Hours

Possible Certificate Program Format

MATERIAL MANAGEMENT

The material management certificate curriculum is designed to provide in-service education for those persons working directly in, or in fields allied to, material management and physical distribution. This particular curriculum format is especially suitable for those who may be in the field and are seeking to fill knowledge or skill "gaps" in their total preparation. Additionally, the program may provide pre-service training for those who may seek or be transferred into jobs within these fields.

Required:

MAT 101 Fundamentals of Material Management* 2 hrs.

* (May be waived for those with equivalent in experience and an elective choice made from Group I or II)

Electives:

Group I Electives:

(SELECT AT LEAST 4 COURSES FROM GROUP I)

MAT 120 Production Control Concepts	3 SH	
MAT 121 Fundamentals of Physical Distribution	3 SH	
MAT 122 Inventory Control for Material Managers	3 SH	
MAT 123 Transportation for Material Managers	3 SH	
MAT 124 Material Handling & Packaging	3 SH	
BUS 249 Purchasing	3 SH	12 SH

Group II Electives:

(MAY SELECT ONE COURSE FROM GROUP II)

MAT 220 Advanced Production Control	3 SH	
MAT 221 Distribution Center Operations	3 SH	
MAT 223 Transportation Law	3 SH	
MAT 224 Advanced Mat'l Handling & Warehousing	3 SH	
MAT 225 Practice of Regulatory Agencies	3 SH	
MAT 226 Forecasting Material Requirements	3 SH	
MAT 228 Finance for Material Managers	3 SH	
MAT 259 Advanced Purchasing	3 SH	
BUS 225 Applied General Statistics	3 SH	
BUS 270 Principles of Management	3 SH	
DPR 203 Systems Analysis & Design I	3 SH	<u>3 SH</u>

Total Hours for Certificate: 17 SH

Descriptions of New Courses

MAT 224 Advanced Material Handling and Warehousing (3-0) 3 cr.

A continuation of MAT 124. Material handling ramifications for warehousing, shipping and receiving operations are considered. Plant layout, facility layout, automated warehousing, and equipment (mobile, racks, conveyors, and other specialized types) are considered.

Prerequisite: MAT 124 or Consent.

MAT 225 Practice of Regulatory Agencies (3-0) 3 cr.

A course describing the history and practices of regulatory agencies impacting upon the transportation field. The structuring of rates and tariffs is also considered.

Prerequisite: Recommend MAT 123.

MAT 226 Forecasting Material Requirements (3-0) 3 cr.

A course describing the nature and purpose of efforts directed toward forecasting material requirements. Content includes statistical and other forecasting techniques; simulation; linear programming; modeling; and mathematical techniques.

Prerequisite: BUS 225 or Equivalent.

MAT 228 Finance for Material Managers (3-0) 3 cr.

A course blending managerial accounting concepts pertinent to material managers with distribution cost analysis techniques. Factors influencing capital outlay decisions as ROI, present value, make or buy, depreciation, and tax considerations are considered.

Prerequisite: BUS 102.

MAT 259 Advanced Purchasing (3-0) 3 cr.

A continuation of BUS 249. Emphasis to be given to managerial aspects of purchasing; contract negotiation and administration; speculative purchasing.

Prerequisite: BUS 249.

Descriptions of New Courses

MAT 123 Transportation for Material Managers (3-0) 3 cr.

Overview of transportation systems and the impact on cost, service, and inventory that each system can develop. Brief exposure to the methods of calculating costs in various modes and routings; and operational aspects of the transportation function is offered to enable the material manager to better understand and evaluate the alternatives available to him.

Prerequisite: MAT 101 or Consent.

MAT 124 Material Handling and Packaging (3-0) 3 cr.

A course designed to present material handling and packaging as tools for use in a total system of material management. Material handling concepts include palletization, containerization, conveyor systems, fully automated warehousing, and integrated production lines. Packaging is treated as a function with ramifications far beyond the mere protection of a product.

Prerequisite: MAT 101 or Consent.

MAT 220 Advanced Production Control (3-0) 3 cr.

An advanced course building upon the concepts developed in MAT 120. Production forecasting, shop loading, capacity planning, shop floor control techniques, short interval scheduling are considered, as is job shop versus continuous flow systems. Further attention is devoted to materials requirements planning.

Prerequisite: MAT 120 or Consent.

MAT 221 Distribution Center Operations (3-0) 3 cr.

An advanced course building upon the concepts developed in MAT 121. Concepts of warehousing, location strategies, and techniques. Administrative aspects including order processing, record keeping, computerization, and control will be covered. Includes a project on warehousing layout and design.

Prerequisite: MAT 121 or Consent.

MAT 223 Transportation Law (3-0) 3 cr.

An examination of the law especially as it pertains to transportation-related activities. Topics include bills of lading, claims, rate structures, storage in transit, private carriage, contract carriers, and import/export operations.

Prerequisite: MAT 123 recommended.

Descriptions of New Courses
To Be Offered as a Result of The New
Material Management Curriculum
(Supports both AAS and Certificate Programs)

MAT 101 Fundamentals of Material Management (2-0) 2 cr.

A survey course designed to provide an introduction and overview to the field of material management and physical distribution. Topics covered include production and inventory control, purchasing, transportation, warehousing and materials handling, order processing, communications, problems and issues related to the field.

MAT 120 Production Control Concepts (3-0) 3 cr.

A course devoted to describing the development, scope and objectives of production control. Specific attention will be given to scheduling, control, critical path, machine loading and materials requirements planning, and other techniques, functions, and activities which are implicit in this aspect of material management operations.

Prerequisite: MAT 101 or Consent.

MAT 121 Principles of Physical Distribution (3-0) 3 cr.

A business course concerned with the movement of goods from production to delivery to distribution channel intermediaries. Attention is focused upon distribution channels, traffic management, warehousing, inventories, organization, control, and communication. Heavy emphasis is given to distribution system design and distribution system analysis.

Prerequisite: MAT 101 or Consent.

MAT 122 Inventory Control for Material Managers (3-0) 3 cr.

An overview of the dynamics of managing inventory in the constantly changing industrial and commercial environment. Topics include forecasting sales and inventory requirements, computer applications to inventory control problems, building inventory models, simulation and the relationships of inventory control to marketing management and production control.

Prerequisite: MAT 101 or Consent.

Description of Existing Courses
(from catalog)

DPR 203 Systems Analysis and Design I (3-0)

3 hrs.

Functions and techniques of systems analysis, design, and development. Analysis of information flow, developing, organizing and using management data, establishing system specifications and equipment needs, and implementation of management information systems. Stresses methods and tools used in systems analysis and design.

Prerequisite: DPR 101 and concurrent registration in BUS 101 or consent of instructor.

ECO 200 Introduction to Economics (3-0)

3 hrs.

A descriptive rather than a quantitative approach to the study of economics. Major topic matter covers economic history, the elements of macro-economics, micro-economics and a comparative look at other economic systems. Specifically designed for students in career-vocational curricula.

ENG 101 Composition (3-0)

3 hrs.

A course in college composition emphasizing the organization and development of expository prose. Introduction to the critical reading of selected essays.

Prerequisite: Satisfactory score on a placement test or ENG 099.

ENG 130 Business Writing I (3-0)

3 hrs.

Formal and psychological aspects of business correspondence. Introduction to various kinds of business letters, memoranda, and reports. Improvement of grammar, spelling and word usage.

PSY 145 Psychology in Business and Industry (3-0)

3 hrs.

Human behavior and its practical applications in business. Psychological applications in personnel and marketing problems. employee selection, morale, and supervisory practices.

Prerequisite: PSY 101 or consent of instructor.

MET 108 Manufacturing Processes & Materials I (3-0)

3 hrs.

Materials, principles, utilization, expectations, and evaluation of principle manufacturing processes. Manufacture of metals and alloys. Iron and steel types and classification systems. Machinability, cutting fluids and power requirements. Elements of metrology and production and facilities planning.

Prerequisite: Concurrent enrollment in MTH 106 or consent of instructor.

Description of Existing Courses
(from catalog)

BUS 245 Principles of Marketing (3-0)

3 hrs.

Principles and methods involved in distribution of goods and services. Role and functions of marketing institutions in business system. Product, price, promotion, and distribution channel policies.

Prerequisite: BUS 111. Prior or concurrent enrollment in ECO 201 recommended.

BUS 249 Purchasing (3-0)

3 hrs.

Nature and importance of the procurement function in modern business organizations. Principles, tools, methods, and techniques employed for the acquisition of materials, supplies, and equipment.

Prerequisite: BUS 245 and sophomore standing. Sophomore standing may be waived upon consent of instructor.

BUS 270 Principles of Management (3-0)

3 hrs.

Presents the theory and major functions of management and describes the role of the manager. Major concepts in organization are developed along with an understanding of the decision-making process and consideration of the human factor in management

Prerequisite: BUS 111 or BUS 160.

BUS 274 Industrial Management (3-0)

3 hrs.

An introductory course in industrial management stressing operational problems. The characteristic of industrial enterprise, the problems of materials procurement, plant organization and layout, labor relations and personnel policies, efficiency techniques, automation, and production development are considered. Related problems of inventory control, quality control, production control, and budgetary control are included.

Prerequisite: BUS 270 or consent of the instructor.

DPR 101 Introduction to Data Processing (3-0)

3 hrs.

The history of data processing, scope and significance of data processing, mechanical data processing, punched card unit records, punched card machine functions, electronic data processing equipment, and basic computed concepts.

Description of Existing Courses
Supporting the Material Management Curriculum
(Extracted from catalog)

BUS 101 Accounting I (3-0) 3 hrs.

Basic accounting and business concepts, principles of recording transactions, special ledgers and statements, end-of-period adjustments, and financial statement preparation.

BUS 102 Accounting II (3-0) 3 hrs.

Continuation of BUS 101 with emphasis on partnerships, corporations, branches, and departments. Interpretation of financial statements, basic valuation and cost concepts, reporting of manufacturing costs.

Prerequisite: BUS 101

BUS 111 Introduction to Business Organization (3-0) 3 hrs.

Nature of business and environment in which it operates. Forms of business ownership; introduction to operative and facilitating facets of business operation; management, marketing, accounting, statistics, business law, finance, investments, insurance, and labor-management relations.

BUS 160 Principles of Supervision (3-0) 3 hrs.

An introductory course dealing with the responsibilities of the first or second echelon supervisor in either the industrial or administrative environment. Leadership qualities, human relations skills, motivation, communications, training techniques, and problems of the work group are discussed.

BUS 211 Business Law I (3-0) 3 hrs.

A general history of the sources of the law, an outline of the Judicial System followed by the Basic Principles of Business Law including contracts, agency and employment, and property.

BUS 225 Applied General Statistics (3-0) 3 hrs.

An introduction to both descriptive and inductive statistics. Collection of data; frequency distributions and measures of data; frequency distributions and measures of location (mean, median, mode); measures of variation; probability, theoretical distributions including sampling distributions, estimation, tests of hypotheses; correlation, regression analysis and index numbers; time series.

Prerequisite: Any mathematics course numbered 100 or above or consent of instructor.