LBCC

LINN-BENTON COMMUNITY COLLEGE

1972-73 CATALOG

ALBANY, OREGON

CALENDAR FOR 1972–73

FALL TERM, 1972	
Registration	July 17-Sept. 22
Classes Begin	Sept. 25
Last day to register for full time students	Sept. 29
Veteran's Day Holiday	Oct. 23
Thanksgiving Holiday	Nov. 23-26
Last day to drop with automatic "W"	Dec. 8
Final Exams	Dec. 11-13
Last day of Fall Quarter	Dec. 15
Christmas Vacation	Dec. 18-Jan. 1
WINTER TERM, 1973	
Registration	Nov. 27-Dec. 29
Classes begin	Jan. 2
Community Education Classes begin	Jan. 8
Last day to register for full time students	Jan. 5
Last day to drop with automatic "W"	March 9
Final Exams	March 12-14
Last day of Winter Quarter	March 16
Spring Vacation	March 19-23
SPRING TERM, 1973	
Registration	Feb. 26-March 23
Classes begin	March 26
Last day to register for full time students	March 30
Memorial Day Holiday	May 28
Last day to drop with automatic "W"	June 1
Final Exams	June 4-6
Graduation	June 8
Last day of Spring Quarter	June 8
SUMMER TERM, 1973	
Registration	May 21-June 15
Classes begin	June 18
Last day to register for full time students	June 22
Independence Day	July 4
Last day to drop with automatic "W"	August 17
Final Exams	Aug. 20-22
Last day of Summer School	Aug. 24
FALL TERM, 1973	
Registration	July 16-Sept. 21
Classes begin	Sept. 24
Fall term ends	Dec. 14

LINN-BENTON COMMUNITY COLLEGE

P. O. Box 249 Albany, Oregon 97321
503-926-6091

THE PHILOSOPHY & DEVELOPMENT OF THE COLLEGE

The following statement of beliefs is essential to understanding the commitment the community has made in Linn-Benton Community College.

BELIEFS:

1. Individuals have different potentials for growth and different needs for self-fulfillment.
2. Learning should provide the individual with an understanding of the relationship between his freedom and his responsibility to society.
3. Through learning, individuals tend to grow from self-centeredness toward social consciousness.
4. Life and learning are dynamic processes, therefore, the individual, and society and its institutions must be free to change goals and aspirations.

IMPLEMENTATIONS:

The following three criteria constitute the base upon which the college philosophy is implemented.

1. The college program will be comprehensive, offering opportunities consistent with individual needs, abilities, interests and potential.
2. The college program will be consistent with local, state and national needs, responding to these needs with flexibility.
3. Learning opportunities will be available to the greatest number of people, with the minimum number of restrictions.

Educational opportunities will be provided through a wide variety of occupational, academic and independent learning programs with additional learning opportunities provided through counseling services, student activities, and adult and continuing education.

GUIDELINES

These guidelines are used in evaluating the operation of LBCC:

1. LBCC is and will continue to be an open-door institution.
2. It is understood that resources are limited, that priorities must be established and the open-door policy therefore is affected by such priorities.
3. Student tuition is to be maintained at a reasonable cost.
4. The instructional staff will be competent in their subject matter area and student-and-learning oriented.
5. The college membership will be sensitive to each other and cooperative action shall be taken by the Students, the Staff and the Board.

THE HISTORY & DEVELOPMENT OF THE COLLEGE

The Linn County Chamber of Commerce, and its committee on State and National Affairs, spearheaded a drive to obtain a community college in 1963. Their enthusiasm soon led to support and equal leadership within Benton County. Funds were raised to finance a feasibility study by the Bureau of Educational Research at the University of Oregon. The report, "A Study of the Need for a Community College in the Linn-Benton Area of Oregon." was submitted to the Linn County Chamber of Commerce in November, 1964,

Voters in the two counties approved the organization of Linn-Benton Community College Area Education District on December 6, 1966. The college serves the high school districts of Albany, Alsea, Corvallis, Central Linn, Lebanon, a portion of Monroe, Philomath, Sweet Home, and Scio.

On July 31, 1967, the college assumed assets of the former Capital Business College and moved from temporary quarters in the Linn County I.E.D. office, to the building at 203 W. First Avenue, Albany.

On September 25, 1967, Linn-Benton Community College offered its first classes in temporary quarters throughout the district.

On February 25, 1970, the voters of Linn and Benton Counties passed a $6.1 million bond issue to construct a campus for Linn-Benton Community College.

In September of 1970, classes were offered at the permanent college site, using modular buildings.

Ground-breaking ceremonies for preparation of the college site were held on September 17, 1970. Bids for construction of the first phase of the permanent campus buildings were awarded in the Summer of 1971, with partial occupancy scheduled for the fall of 1972 and complete occupancy in the Spring of 1973.

ACCREDITATION

Linn-Benton Community College is fully accredited by the Oregon State System of Higher Education and Oregon State Board of Education, and offers a variety of programs approved by the Veteran's Administration.

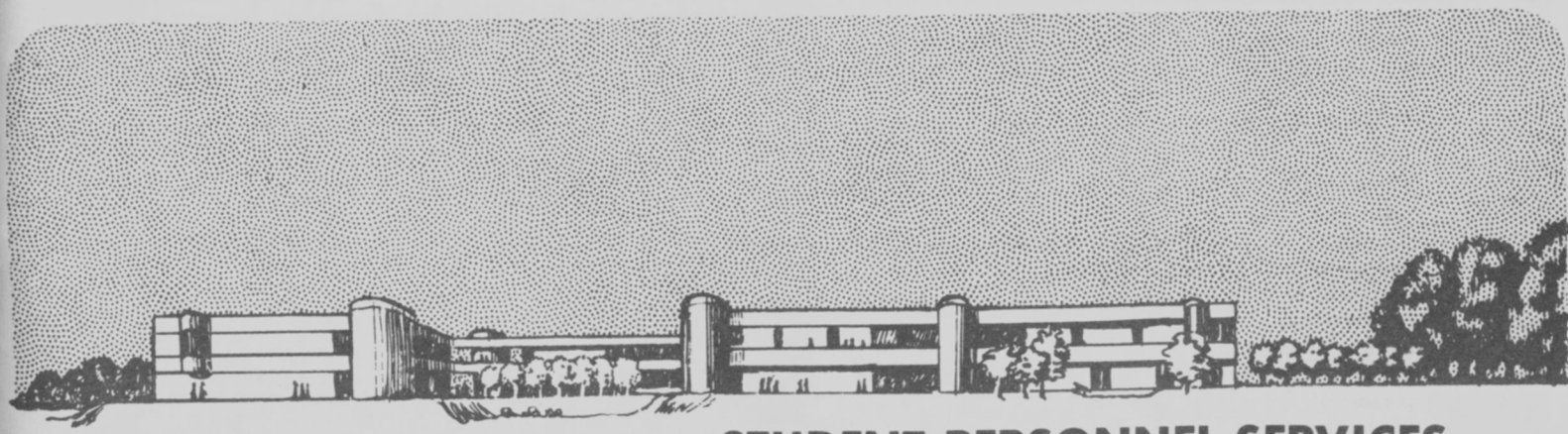
Presently, Linn-Benton Community College is recognized as a "Candidate" by the Northwest Association of Secondary and Higher Schools. During the 1971-72 college year, the self-evaluation study was conducted and an on-site evaluation has been scheduled for October of 1972, at which time full accreditation can be granted.

YEAR-AROUND COLLEGE

Linn-Benton Community College has accepted the "Year-Around College" concept, and by the summer of 1974, most of the college's occupational and general education programs will be available to students on a four-term basis.

Students will be able to enter and exit from programs during any term. Through individualized instruction, it will be possible to complete a two-year program in six consecutive terms, or one and one-half years.

Some programs are currently available on the "Year-A-round" basis. For further information, check with the Dean of Students.



STUDENT PERSONNEL SERVICES

ADMISSION

GENERAL POLICY

The only specific general entrance requirement is that applicants be beyond high school age (18 years). In order to review qualifications, however, the College must have the completed application for admission and the high school transcript, if any. Applicants who have taken post-high school training at other institutions must file transcripts from all institutions. Evidence of receipt of the equivalency certificate (GED) must be submitted where appropriate.

Students applying to enter an occupational program must be 18 years of age and must, in the judgment of the administration, be able to benefit from the instruction offered. Admission to occupational programs varies slightly, but is generally first-come, first-served. Date of application is an important consideration in admission to occupational career programs. Specific admission requirements for health occupations are outlined below. The administration reserves the right to give priority to district residents in specific occupational and vocational programs.

ADMISSION REQUIREMENTS

FULL-TIME (MATRICULATED)

Students who register for 8 or more credits must file with the Admissions Office an Application for Admission and an official copy of their high school transcript or official copies of all college work. It is the student's responsibility to secure transcripts for admission purposes.

LBCC will allow early admission of high school students planning to graduate in June on the basis of a 7-semester transcript.

When a student has provided the college with the required application and transcript, the applicant will receive a letter of acceptance. (See specific major for special admissions requirements.)

PART-TIME

Students enrolling for 7 or fewer credits may make application at the time of registration and are not required to secure transcripts unless they plan to graduate from LBCC. Part-time students are unclassified for admissions purposes.

ADMISSION FOR FOREIGN STUDENTS

Foreign student admission is on a selective basis. Those desiring to enroll in classes at Linn-Benton Community College should contact the Office of Admissions for specific admissions requirements. Applications should be on file at least two months prior to the preferred quarter of entry.

SPECIAL ADMISSIONS

Persons qualified by maturity and ability to do satisfactory college work but who fail in some respect to meet the requirements for regular standing, may apply for admission as a special student until such entrance deficiencies are removed. Transcripts for full-time special students will not be forwarded to another institution until the deficiency has been removed. Students must file a "Special Student Agreement" form with the Admissions Office. The form is available from the Admissions Clerk.

UNCLASSIFIED ADMISSIONS

Persons enrolled on a non-credit basis or persons enrolled in a program of less than seven credits shall be unclassified for admission purposes. Students in this category may be admitted without application and without presenting a transcript of previous high school or college work. Admission of unclassified students to selected credit programs and classes is on a space available basis.

ADMISSION OF NON-HIGH SCHOOL GRADUATES (Special Students)

*LBCC will admit non-graduates as special students. Those applying as special students must complete a Special Student Agreement, available from the Admissions Office.

*See special student section for limitations.

ADMISSION OF HIGH SCHOOL STUDENTS

PART-TIME SIMULTANEOUS:

Enrollment of high school students is allowed without special permission if:

1. The class(es) meet after normal high school hours.
2. Enrollment is for 7 or fewer credits.
3. Enrollment is limited to classes which require no special admission clearance.

Admission to specific classes and programs is on a space available basis.

FULL-TIME OR NON-SIMULTANEOUS:

High School age students who have been released from compulsory attendance under ORS 339.030 may wish to attend the community college for one of a variety of reasons. These individuals may be accepted for enrollment subject to review by the Dean of Students.

Students 17 years or younger may enroll on a space available basis as special students.

ADMISSION TO HEALTH OCCUPATION PROGRAMS

Since the admission of new classes each year is limited by the present college staff and facilities, it is necessary for the college to select those individuals who, on the basis of their academic and personal qualifications, can best benefit from programs in the health occupations curriculum. Although an individual may not always be accepted into a specific health occupations program, the College is committed to assisting every applicant to select an appropriate career program.

In addition to the general college requirements for admission, each individual applying to health occupations programs must satisfy program admission requirements.

ASSOCIATE DEGREE NURSING (RN-Two Years)

ADN applicants must: (1) complete the National League for Nursing Pre-Nursing and Guidance Examination. The dates for the administration of this examination are available through the Admissions and Counseling Offices. (2) file a completed physical examination form. (3) have total application file be reviewed by the Admissions Committee. The Admissions Committee will review all past transcripts of high school or college enrollment. (4) be available for admission interview if recommended by committee. ADN applicants will be notified of the disposition of their application by June 15. Individuals are encouraged to apply no later than May 1 in order to be considered for the fall class. For further information regarding the admission of Associate Degree Nursing applicants, students may contact the Counseling Center or the Admissions Office.

DENTAL ASSISTANT (four quarters)

Dental assistant applicants must: (1) complete all regular admission steps. (2) complete the General Aptitude Test Battery (GATB) through the local employment office and have test scores forwarded to the Admissions Office. (3) file a completed physical examination form with the Admissions Office. (4) be interviewed by a member of the Admissions Committee.

The total application will be reviewed by the Admissions Committee. Individuals who wish to seek admission should apply no later than May 15.

Applicants will be notified of the disposition of their application by June 1. The Dental Assistant program begins each summer quarter and continues for four quarters. For further information, students may contact the Counseling Center or the Admissions Office.

NURSING ASSISTANT (three months)

Individuals wishing admission to the Nursing Assistant program must: (1) provide evidence of past educational achievement. (2) arrange for an interview with a member of the Admissions Committee.

The individual's total application file will be reviewed by the Admissions Committee. Individuals are encouraged to apply at least one month prior to the beginning of the quarter for which they wish to attend. Notification will be at least two weeks prior to the beginning of each quarter. Students who are accepted for the Nursing Assistant program are required to complete the standard physical examination form and questionnaire available through the Admissions Office. For further information you may contact the Counseling Center or the Admissions Office.

ADMISSION TO WASTEWATER TECHNOLOGY

LBCC provides a two year technical associate degree program in Wastewater Technology under grant No. 101-WP-7-01 of the Federal Environmental Protection Agency.

Admission to this tuition free program is selective and requires the following steps: (1) complete all regular admission steps. (2) complete the General Aptitude Test Battery (GATB) through the local employment office and have test scores forwarded to the Admissions Office. (3) file with the Admissions Office a completed physical examination form. (4) have forwarded to the Admissions Office a recommendation if previously employed in a treatment plant.

Those selected will receive a scholarship which will provide tuition, books and salaried summer experience opportunity. Applicants should apply by July 15 to be considered for fall classes.

ADMISSION OF TRANSFER STUDENTS

LBCC freely admits students who are transferring from another collegiate institution. Transfer students (as all new full-time students), must have counselor approval of the first quarter schedule. Scholastic probation transfer will be admitted on *probation. Transfer students may be accepted as **"Special students" while waiting to receive transcripts from prior collegiate enrollment.

*See Probation, page 8
**See Special Students, page 4

CLASSIFICATION OF RESIDENCY

A student may be qualified as a resident of the district by meeting LBCC Board approved criteria. Individuals may request residency review through the Admissions Clerk. The request must be accompanied by, but not limited to: 1) place of permanent residency (domicile); 2) place and nature of employment; 3) source of financial support; 4) age; 5) marital status; 6) voter qualification; 7) citizenship or U.S. residency status.

Further information is available through the Dean of Students Office.

REGISTRATION

CREDIT CLASSES

1. Complete all admission requirements (see page 4)
2. Pre-registration counselor conferences are required for:
   a. all new students registering for 8 or more credit hours.
   b. students being sponsored by a special program, such as MDTA, DVR, WIN, etc.
   c. students on probation or in danger of failure.
   d. students changing their major or those who have questions regarding their major.
   e. students enrolling for courses which require counselor approval as specified in the schedule of classes.

   In addition, any student who wishes counseling assistance in planning his program is encouraged to contact the Counseling Center.
3. Full tuition payment is required at the time of registration, plus insurance premium if insurance is desired.

   Students sponsored by one of the special programs or attending under a grant or scholarship must pick up an authorization form at the Financial Aids Office prior to registering. There is a Deferred Payment plan available to full-time students (12 or more credit hours) which allows them to pay 1/3 of their tuition at the time of registration and the balance by the end of the fifth week of classes. However, application for a Deferred Payment must be made at the Financial Aids Office prior to registering.
4. Packets of registration materials are available in the Registration Office lobby. When all forms are completed, they are to be presented at the Registration Office window with full tuition payment or payment authorization from the Financial Aids Office.

NON-CREDIT CLASSES

Registration materials are available in class during the first and second class meetings, or students may preregister in the campus Registration Office or Benton or Lebanon Centers.

REGULAR QUARTERLY TUITION SCHEDULE

(Service Fee Included — See Below)

Credit Classes	District	Out-of-District	Out-of-State
Minimum Charge	15.00	15.00	35.50
Per Credit	7.50	13.50	35.50
*Maximum Charge	90.00	162.00	426.00

*Includes fees for 12 or more credits.

NON-CREDIT CLASSES

Tuition is based on 30 hours of instruction for $15.00. However, additional fees may be charged as a laboratory fee for materials and supplies. Tuition for those courses which are less or more than 30 hours is determined at the rate of $.50 per class hour.

SPECIAL FEES AND EXPENSES

To add one or more classes at one time after classes begin (except where requested by the college) . . $2.00

To drop one or more classes . . . . . No Charge

Credit by Examination (not including charge of $3 per credit for successful completion and must be enrolled at LBCC) $5.00

Student Medical Insurance, per year (available fall quarter only) $34.50*

Late Registration Fee for Students carrying less than 8 credit hours, including non-credit (begins third week of classes) $1.00

Official copy of LBCC transcripts $1.00

*Rates shown applied to 1971-72 school year — subject to change for 1972-73 school year.

LBCC SERVICE FEE

Tuition monies are used for the support of instructional programs and are deposited in the General Fund. However, $1 per credit hour of the total amount is used to provide supporting services and for purchase of special instructional supplies. For example, a student who enrolls for 12 credits will pay a $12 fee. Of the $12, $3.20 is returned to the General Fund for instructional supplies. The remaining $8.80 is allocated to the Activities and Co-Curricular Fund (ACCF) to provide services and activities for the students of LBCC. Included are college center and food services, sports programs, student publications and student activities. The budget for the ACCF is a product of the Student-Faculty ACCF Committee and has received approval from the College Board of Directors. A copy of the ACCF budget is available for review in the Dean of Students Office.

GOLDEN AGE CLUB

Senior citizens (65 years and older) may wish to acquire an LBCC Golden Age Card. The bearer of the card is granted tuition and fee waivers to most college classes and all college activities. The cards are available in the Registration Office.

UNIQUE PROGRAMS

Students from the Chemeketa Area Education District are allowed to enroll in LBCC unique programs (Agriculture Technology, Environmental Studies, Metallurgical Technology, Automotive Mechanics, Body and Fender Technology and the two-year Associate Degree Secretarial and Bookkeeping-Clerical programs) at Resident tuition rates. Priority in these programs may be given to Resident students when applications exceed available openings.

CHANGE OF PROGRAM

Adding a course: Students taking 8 or more credits may add a course only during the first week of class. Students taking fewer than 8 credits may add a course during the first week or, with the instructor's written permission, during the second or third week.

Withdrawal: A student may officially withdraw from a class up to the last regular day of class each term. Students carrying 8 or more credits must have counselor approval of their withdrawal.

Students changing to another section of a course due to cancellation of a class or for other reasons must officially add the new section. No add charge will be accessed in this case.

AUDITING CLASSES

Students regularly enrolled may request admittance to a class as an auditor on a space-available basis. Charges for auditing will be the same as for regular credit enrollment.

REFUNDS

A full-time student withdrawing from school by the end of the fifth week will receive a full refund of tuition less $15. Part-time students with seven or fewer credits will receive a full refund less $5. Withdrawals after that date will receive no refund.

Students officially reducing their credit load to a lower tuition level during the first five weeks of class will receive a refund of the difference in tuition amounts, to the $15 minimum charge.

A student officially withdrawing from a non-credit class during the first half of the course will receive a full refund of tuition less $2.50.

Students who withdraw without giving written notice to the Registration Office will forfeit all claims to refund of tuition or fees.

Classes cancelled by the college entitle the student to a 100% refund or re-enrollment without additional late fee.

ACADEMIC REGULATIONS

OCCUPATIONAL—TECHNICAL AND LOWER DIVISION CREDITS

In general, a class which meets one hour per week for one term will yield one credit; a class meeting three hours per week, three credits. A lab class usually yields one credit for each three hours of lab time.

Courses which have been approved for transfer to four-year colleges and universities are, generally, those numbered from 50 to 299. It should be emphasized that there may be exceptions. Those courses which are generally non-transferrable have course numbers below 50. Some technical courses and curriculum are acceptable for transfer to selected four-year institutions.

Questions regarding transferability of courses should be referred to the Dean of Students or counseling staff.

TRANSFERRING LBCC CREDITS

Lower division students may transfer up to 108 credit hours to Oregon State System Schools. Even though D grades are passing, many schools will not accept credits for which a D has been given. This is especially true if the course is in the student's major field. P/NP credits may be limited or recalculated for GPA purposes upon transfer.

We encourage students who are planning to transfer to work with a member of the counseling staff in planning an appropriate transfer program.

STUDENT CREDIT LOAD

You are considered a full-time student if you register for 12 or more credit hours. You may mix your schedule by registering for some general studies courses and some vocational-technical courses. If you must work part-time while attending the community college, you should bear in mind that most classes require one or two hours of preparation for each class hour. Working students should adjust their work schedules accordingly or register for fewer class hours. In most areas, there are suggested curricula to cover one or two years of study. Students who are employed may schedule a two-year equivalent curriculum over an extended period of time.

Lower division studies students should plan to schedule an average of 15 credits per term in order to accumulate 90 credits in a six quarter (2 year) period. No more than 20 credits may be taken in any single term without approval of the Dean of Students.

CREDIT LIMIT RULE

It is the rule of four-year Oregon State institutions that after a student has completed *108 credit hours, regardless of where the work was taken, the remaining credit requirements must be completed at a four-year institution.

*This is equal to full-time attendance for seven quarters.

CREDIT BY EXAMINATION

If a presently enrolled student believes that he has mastered the material presented in a certain course, or has had equivalent work experience, he may make application to be excused from the course and to receive credit by following this procedure:

a. Check with a counselor so that a decision to continue or not to continue with the request can be made. Transcripts and other evidence of experience should be reviewed by the counselor and student.
b. Fill out a credit by examination form which is available in the Registration Office.
c. Go to the appropriate division chairman for approval or referral.

If the student is successful upon completion of the exam, the credits and a pass (P) grade will be entered on the transcript. No credit change or entry will be made in the case of failure. A limit within a quarter may be placed upon the number of course examinations.
COST: $5.00 test fee.
PLUS: $3.00 per credit earned.

COLLEGE LEVEL EXAMINATION PROGRAMS (CLEP)

LBCC is planning to initiate a program of the College Entrance Examination Board titled, "The College Level Examination Program" (CLEP). College credit can be awarded by satisfactory completion of a series of exams. For further information and test fees, contact the Director of Counseling.

ADVANCED PLACEMENT TESTS

Students who complete college level work in high school under the Advanced Placement Program sponsored by the College Entrance Examination Board, and who receive satisfactory grades in examinations administered by the Board may, on admission to LBCC, be granted credit toward an Associate in Arts Degree in comparable courses. Acceptable credit will be recorded as pass grades (P) on the LBCC transcript. Advanced Placement Scores should be forwarded to the LBCC Admissions Office.

GRADING SYSTEM

A —— Exceptional and Outstanding Work
B —— Above Average College Work
C —— Average Work
D —— Barely Passing Work
F —— Failing Work, No Credit Given
I —— Incomplete Work
W —— Withdrawal
P —— Pass
N —— No Pass

Incomplete Rule: Incompleted work must be completed by the end of the following term or it is automatically considered a "W".

Grade Points: Quarter term grades are assigned points as follows:

A —— 4 Grade Points Per Credit
B —— 3 Grade Points Per Credit
C —— 2 Grade Points Per Credit
D —— 1 Grade Point Per Credit
F —— 0 Grade Point Per Credit
I —— 0 Grade Point Per Credit, No Hours Attempted
*W — 0 Grade Point Per Credit, No Hours Attempted
P —— Credit Earned, Not Computed in GPA
N —— 0 Grade Points Per Credit, No Hours Attempted

*A "W" is not recorded for individuals who withdraw prior to and during the first two weeks of the quarter.

PASS/ NO PASS OPTION

Certain courses listed in the schedule have an "OPT" designation indicating that each student in that class has the option of taking the course for the usual letter grade or taking it on a pass/no pass basis. The maximum number of "P" credits *allowed toward an LBCC degree will be 16 hours,* not including those with mandatory pass/no pass grading. Students should consult with a counselor before deciding to choose the pass/no pass grade. It is not advisable for a student

to choose the P/NP grade in a course that is considered a major course in his field of study. Students planning to transfer to a four-year institution should check that institution's requirements regarding the P/NP.

HONOR ROLL

President's Honor List: Those students who obtain a grade point average of 3.33 or better and have carried a 10-credit hour load or more are placed on the President's Honor List for the quarter.

ACADEMIC PROBATION

Students will be placed on probation if during their first quarter of attendance their grade point average drops below 1.7, or during their second quarter their cumulative grade point average drops below 2.0, or at the end of their third quarter their cumulative grade point average for all quarters is below 2.00. This rule applies only to those students who are carrying eight or more credits for any single quarter.

Students suspended or on probation who are transferring from another institution of higher education to Linn-Benton Community College will be automatically placed on probation.

TRANSCRIPTS AND RECORDS

Student transcripts may be secured through the Records Office. The first request for a transcript will be honored without charge. Additional transcripts will be provided at a cost of $1.00 each. Unofficial copies are available for 10 cents per copy. Students have access to transcripts and records as outlined in the "Policy on Student Rights, Freedoms, Responsibilities and Due Process."

CLASS ATTENDANCE

Students are expected to attend each class meeting for which they have registered, since there is no official means of excusing absence.

When absence for some unavoidable reason does occur, it is the obligation of the student to contact the instructor to determine if make-up work is possible and the amount.

WITHDRAWAL FROM SCHOOL

Individuals who find they can no longer attend should *officially* withdraw from school. The first step in withdrawal from full-time attendance is a counseling appointment. Students who withdraw on or before Friday of the fifth week may expect a tuition refund.*

*See Refunds, page 6

GUIDANCE SERVICES

ORIENTATION

Brochures, catalogs and class schedules are available to assist students in becoming acquainted with LBCC. All students and prospective students have the opportunity to talk with a counselor about programs, goals and classes. During the first week of classes the Student Government offers assistance to new students through information booths, maps and programs.

ADVISING

All new students must arrange for an appointment with a professional counselor who will assist the student in evaluating his academic records and in selecting courses that are appropriate for his major.

COUNSELING

Professional counselors are available to assist students in dealing with academic, vocational or personal problems. The Counseling Center is open from 8:00 a.m. to 5:00 p.m. week days, including the noon hour. During the first week of class there are counselors available from 6:30 to 8:30 p.m.

TESTING

LBCC does not require a general admission test. Counselors do have available special tests to assist in the counseling process. Specific majors (Dental Assistant, Associate Degree Nursing and Wastewater Technology) have special testing requirements for admission. The LBCC Counseling Center administers tests for high school equivalency and college credit. For further information contact the Admissions Office or the Counseling Center.

HEALTH SERVICES

A Health Center, staffed by a registered nurse, is located in the Counseling Center to provide emergency first aid and counseling on health problems. The Health Center is open from 8:00 a.m. to 5:00 p.m. week days.

HEALTH INSURANCE

LBCC makes available to students a comprehensive sickness, hospitalization and accident insurance program at reasonable rates. If the student is not covered by his parent's insurance, he should certainly consider this health insurance. The cost for the 1971-72 school year was $34.50. Coverage is also available for dependents of married students.

FINANCIAL AIDS

It is the intent of Linn-Benton Community College to permit college attendance by students who cannot pay the full cost of college education. Financial need is defined as the difference between the cost of education, and the amount a student and family can afford. This is the primary criteria in determining financial awards.

The concept of financial aids at LBCC is based on the belief that parents and individuals have the primary responsibility of meeting educational costs. LBCC financial aids are intended only to supplement family and student resources. When the resources of a student and his family are not sufficient to cover the full cost of education, the Financial Aids Center attempts to meet the remaining financial need through loans, grants, and/or part-time employment. To determine the amount a family and student can be expected to con-

tribute LBCC relies on the College Scholarship Need Analysis Service. The use of this service assures every student equal treatment. However, six weeks is required by College Scholarship Service for processing of Need Analysis Applications.

APPLICATION PROCEDURES FOR 1972-73

To apply for Financial Aids, obtain a financial aid application and Parents Confidential Statement (PCS) from your high school counselor or the LBCC Financial Aids Office.

Application Dates:

Before January 15, 1973

To be considered for both Oregon State Scholarship Commission Grants and federally supported aid programs, entering freshmen mail Parents Confidential Statement to College Scholarship Service, P.O. Box 1501, Berkeley, California, 97401, and . . .

Before March 1, 1973

Mail financial aid application to Oregon State Scholarship Commission, 1445 Willamette, Eugene, Oregon, and. .

Before March 15, 1973

Entering freshmen who were unable to file in time for Oregon State aid and returning or transfer students file Parents Confidential Statement (or Student Confidential Statement) with College Scholarship Service to be considered for Federal Aid programs, and . . .

Before April 26, 1973

Mail financial aid application to LBCC Financial Aids Center. Applicants claiming financial independence should attach an affidavit of financial independence.

All applications received after April 26, 1973, will be accepted and considered as funds become available.

Students entering LBCC during Winter, Spring, Summer terms should file a Parents Confidential Statement and Financial Aid Application not later than two months prior to the first day of the term. Students may apply for aid at any time and will be considered for whatever funds, if any, are available at that time.

All applicants will receive written notice of the amount of financial aid awarded. Award notices will be mailed late Spring or early Summer. Applicants entering during Winter, Spring, or Summer term will be notified of awards two weeks prior to the start of classes. Award recipients should report to Financial Aids Service after obtaining an approved class schedule during registration period.

ESTIMATED EXPENSES FOR IN-STATE STUDENTS

Individual cost varies according to differences in courses of study, housing, transportation costs, as well as many other factors. The table below outlines estimated average expenses for the academic year:

1. Dependent students commuting from home:

Tuition and Fees (3 terms)	$ 270.00
Room & Board	800.00
Books & Supplies	195.00
Transportation & Insurance	475.00
Clothing	90.00
Personal & Recreation	110.00
Medical	75.00
TOTAL THREE TERMS	$2,010.00

2. Married or Independent Students: Contact the Financial Aids Center for estimating family budgets.

For further information on LBCC Financial Aids, contact the Financial Aids Center.

COLLEGE WORK STUDY (CWS)

This federally supported plan provides on- and off-campus employment for full-time students with financial need. Employment under this program during the school term may not exceed 15 hours per week. Students will be paid not less than $1.65 per hour and some jobs may pay more to returning students. Whenever possible, students are placed on jobs compatible with their career goals. Work-Study employees must carry a minimum of twelve credit hours and remain in good academic standing.

EDUCATIONAL OPPORTUNITY GRANTS (EOG)

The Higher Education Act of 1965 established this federally funded cash grant program for students with exceptional financial need. These grants vary from $200 to $1,000 per year, depending on the need of the applicant and cannot exceed 50% of a student's total financial aid award.

NATIONAL DEFENSE STUDENT LOANS

Full-time students in good standing who have financial need may qualify for these long term low-interest loans. Loans may be made for up to $1,000 per academic year, although the average loan is about $600.

No interest is charged while the borrower is in college or in deferred repayment status (active military, or serving in the Peace Corps or VISTA). Interest of 3% per year is charged during repayment period. The borrower's first payment is normally due nine months after leaving college, except when deferment status is obtained.

GUARANTEED STUDENT LOAN

Loans of up to $1,000 per academic year are available to students through their own bank. Loan repayments do not begin until ten months after the borrower leaves college. Annual interest on Guaranteed Student Loans is 7%. If the borrower's adjusted gross family income is $15,000 or less, the federal government will pay the interest until the repayment period begins. The loan may be prepaid to reduce or eliminate interest charges.

Proof of financial need (Parents or Student Confidential Statement) is not required for this loan program. The student obtains the application form from the LBCC Financial Aids Service and takes it to the lending institution of his or her choice, after the college certifies: (a) that the applicant is accepted or enrolled and in good standing; (b) that the applicant's estimated education expenses are reasonable: (c) the amount and types of financial aid the student receives from other sources.

EMERGENCY LOAN

Emergency, short-term loans are available through the Financial Aids Center. Emergency loans are limited to full-time students.

LAW ENFORCEMENT EDUCATION PROGRAM (LEEP)

Financial assistance is available to law enforcement personnel and pre-service law enforcement students in the form of loans and grants. Proof of financial need is not required for LEEP grants or loans.

Eligibility:

1. Presently employed law enforcement officers (in-service) are eligible for both grants and loans.
2. Law Enforcement officers on leave of absence who wish to attend full-time are eligible for loans only.
3. Pre-service law enforcement students are eligible for loans only.

Application:

1. Students applying for grants only may apply by using the standard Law Enforcement Education Program form.
2. Students interested in obtaining larger amounts of financial support should complete the "Financial Aid Application for Oregon Community Colleges".

NURSING GRANTS

This cash grant is for the purpose of assisting students of exceptional financial need to undertake courses of study leading to careers in nursing. Those enrolled as full-time students in a course of study leading to an associate degree in nursing are eligible to apply. Application procedures are the same as for College Work Study.

NURSING LOANS

A student accepted for admission in the associate degree nursing program is eligible to apply for federally funded nursing loan money not to exceed $1,500 per academic year or the amount of the student's need, whichever is the lesser. A Parents Confidential Statement is not required for nursing loans. Preference in loan awards will be given to full-time students.

STATE GRANTS

The Oregon State Scholarship Commission provides tuition grants or cash awards to students with exceptional financial need. The total award will not exceed $500 per year per student. The two award programs for which LBCC students may be considered are *NEED Grants and Community College Grants.*

COLLEGE BOARD GRANTS

Tuition-free grants to Linn-Benton Community College. Presently enrolled high school students should apply through their high school principal or counseling office. Grants are also available through the LBCC Financial Aids Office. Apply before May 12 or as specified by your high school.

SCHOLARSHIPS

Several community service organizations and business establishments have offered scholarship assistance for LBCC students. We recommend that interested individuals contact the Financial Aids Coordinator or high school principal or counselors.

DEFERRED TUITION PAYMENT

Full-time students may have the payment of their tuition extended. A minimum of one-third of the total tuition is required as a down payment. The balance must be paid by the end of the fifth week of classes.

G.I. BILL (VETERAN'S BENEFITS)

Prospective students who are eligible for veteran's benefits should contact the college for V.A. approved program information prior to making application for benefits at the Veteran's Administration regional office. Upon receipt of an application, the Veteran's Administration will mail the veteran acknowledgement of receipt of the claim and provide a claim number. After processing the application, the Veteran's Administration will issue eligible veterans a Certificate of Eligibility valid only at the institution named and only for the objective indicated. The prospective student should bring the Certificate of Eligibility to the Financial Aids Center at the time of initial registration.

PART-TIME STUDENT EMPLOYMENT

Application: Complete an application in the LBCC Student Placement Service Office for on- or off-campus employment.

PLACEMENT SERVICE

A full-time job placement service is available to the graduates and alumni of LBCC. Available service includes referral to job openings, assisting students in preparing resumes and job search techniques. Students who desire to use this service may also establish a permanent credentials file in the Placement Service Office. For further information on the LBCC Placement Center, contact the Director of Placement.

ALUMNI

LBCC publishes an alumni newsletter to keep its former students informed about campus activities. Students who wish to participate in an alumni organization should contact the Director of Placement.

STUDENT ACTIVITIES

Through the combined efforts of students, faculty, and administration, student activities at LBCC provide a balanced campus and community-wide program of events and associations which offer opportunities for the personal, social and cultural development of the individual and the enjoyment of leisure activities.

The College encourages those student activities which will compliment the academic program by providing opportunities for constructive leadership, cooperative planning, and development of social and cultural interests.

Among the activities planned by AS-LBCC in the coming year are convocation speeches, film series, dances, performing artists, automotive events, art exhibits, etc.

STUDENT RIGHTS, FREEDOMS, RESPONSIBILITIES AND DUE PROCESS

The LBCC Board of Directors on December 9, 1971 approved as policy the document, *Student Rights, Freedoms, Responsibilities and Due Process.*

As the title implies, policy is set forth regarding student rights, conduct and procedural fairness. This document was developed by a committee of students, staff and Board members.

INTERCOLLEGIATE ATHLETICS

Linn-Benton Community College has developed a comprehensive program of intercollegiate athletics with affiliation with the Oregon Community College Athletic Association. Present competative sports offerings at LBCC are in baseball, basketball and golf. Students interested in participation should contact the Athletics Department.

INTRAMURAL SPORTS

A comprehensive intramural sports program is available to LBCC students during the academic school year. Interested students should contact the Coordinator of Intramurals through the Office of Student Activities.

SPORTS CLUBS

A sports club program which provides the student with opportunities for inter-city and inter-county competition as well as an opportunity for the development of leisure activity is available. Sports clubs presently established are skiing, flag football, basketball, rugby, volleyball and slow-pitch softball. Individuals interested in participation in present sport clubs or in the establishment of new sports clubs should inquire at the Office of Student Activities.

STUDENT GOVERNMENT

The voice of students organized to participate in campus government is the Associated Students of Linn-Benton Community College (AS-LBCC). Its function is to coordinate all student activities, ideas, and legislation; to represent the students of LBCC; and to act as a liaison with the faculty and administration. In addition, AS-LBCC represents the students of LBCC on a state and national level.

The participation of the students of LBCC is essential in the Student Government if it and the College are to act in the best interests of the students of LBCC. Student Government offices are located in the College Center.

CLUBS AND ORGANIZATIONS

A number of clubs and organizations have been established at the College and opportunities for affiliation range from a professional business club to the Ecology Club. Students desiring information concerning present clubs and organizations or the establishment of new clubs should contact the Office of Student Activities.

COLLEGE CENTER

The College Center serves as the gathering place for all members of the college community — students, faculty, administration, alumni and guests. The College Center provides for the services, conveniences and amenities that the members of the college community desire for getting to know and understand one another through informal association outside the classroom. Among the services presently provided in the College Center are: snack bar, food and drink dispensaries, lost and found, ticket sales and distribution, recreational and game equipment, meeting rooms, bulletin boards, public telephones and housing listings. The College Center is open from 7:30 a.m. until 10:00 p.m. Monday through Thursdays and until 5:00 p.m. on Friday.

FOOD SERVICE

LBCC presently operates an interim snack bar known as Chubby's Corner, located in the College Center, which operates from 8:00 a.m. until 4:30 p.m., Monday through Friday and offers a broad menu of hot and cold food items. The greater share of profits from the food service, including vending, are transferred into the Activities and Co-Curricular Fund to further support the extra-curricular programs at the college.

HOUSING

Though the college does not provide institutional housing for its students living away from home, it does provide a current list of available housing in private homes and commercial dwellings. The listing of available housing (which is located in the Office of Student Activities), is updated each quarter in order to facilitate locating accommodations with minimum delay.

CAMPUS STORE

The Campus Store provides all the required textbooks and miscellaneous supplies and materials which a student will require while attending LBCC. Profits from the Campus Store help support the extra-curricular activities and programs at LBCC. The Campus Store is located in Building "G" and is open from 8:30 a.m. to 5:00 p.m. Monday through Friday.

PARKING

Linn-Benton Community College provides free parking for students and staff on a first-come, first serve basis. Certain areas, however, are designated for specific uses and your cooperation in honoring these areas is appreciated. These areas are (V) visitors, (H) handicapped and (R) reserved. Handicapped parking permits are available through the College Business Office.

DEGREES, DIPLOMAS, CERTIFICATES, GRADUATION REQUIREMENTS

LBCC offers the Associate in Science, Associate in Arts and is planning the Associate in General Studies. The requirements for these degrees, which are presented below, are subject to approval of the Board of Education as well as the State Department of Education, Division of Community Colleges.

The Associate in Science: This degree is awarded to those students who complete the requirements of a departmental curriculum, when such requirements represent the completion of an organized two-year program.

Associate in Arts: This degree is awarded to students who complete the requirements of the Lower Division Liberal Arts Program.

GENERAL REQUIREMENTS FOR ASSOCIATE IN SCIENCE DEGREE (AS):

1. The degree will be awarded to those who complete the required courses and credit hours prescribed by any structured occupation program of at least 90 credits.
2. Attend at least two terms, including the last term, and earn at least 24 credits at Linn-Benton Community College.
3. Maintain a grade point average of at least 2.00.
4. Earn a minimum of eighteen (18) credits in general education courses as follows:
   a. Six credits in communications.
   b. Three credits in Physical Education activity courses — 1 per term.*
   c. A course in Health.
   d. Additional credits to bring total to 18. These are to be selected from the following areas: Social Sciences, Science and Math and Humanities, with a minimum of 3 credits in each of two areas.

*See Waivers and Exceptions

GENERAL REQUIREMENTS FOR ASSOCIATE IN ARTS DEGREE (AA)

1. Completion of 90 quarter hours with a cumulative grade point average of 2.00 or higher.
2. Include in the program the following:
   a. Language Arts, 6 credits (WR 111-112).
   b. Physical Education activity courses, 5 credits — 1 per term.*
   c. A course in Health.
   d. A 9-credit sequence in each of the three areas: Humanities, Social Sciences, Science or Mathematics; plus another 9-credit sequence in any one of these areas. In the case of Science and Math, the sequence will ordinarily be 12 credits.
3. Attend at least two terms, including the last term, and earn at least 24 credits at Linn-Benton Community College.

*See Waiver and Exceptions

The Humanities group includes such courses as Art, Foreign Language, Literature, Music Literature, Philosophy and Speech.

The Social Sciences include such courses as History, Psychology, Sociology, Political Science, Anthropology, Economics and Geography.

The Science and Math group includes such courses as Mathematics, Biology, Geology, Physics, Botany and Physical Science.

ASSOCIATE IN GENERAL STUDIES DEGREE (AGS)

LBCC is now developing requirements for the AGS degree. The AGS degree is planned to provide the student with the opportunity to enroll in inter-department studies of both occupational and lower division course work. Contact the Dean of Students Office for more specific requirements of the AGS.

Minor deviations from specific requirements may be allowed for those who offer sufficient evidence or just cause and who have the approval of the administration.*

*See Waivers and Exceptions

CERTIFICATES:

Certificates are awarded to those individuals who have completed specific requirements within a vocational major. They are awarded by a division of the college on the recommendation of the instructional staff within that field. Business, nursing assisting, welding, dental assisting and sewage treatment plant operators are commonly awarded certificates. Generally, students must complete a minimum of 36 credits to qualify for the one year certificate. Individuals should refer to specific sections of the catalog to determine requirements.

ADULT HIGH SCHOOL DIPLOMA (AHSD)

LBCC now offers the AHSD to those individuals who have not received a high school diploma. This diploma opportunity is in addition to, and does not replace, the General Educational Development (high school equivvalency) examination (GED). For further information contact the Admissions Office or Counseling Center.

WAIVERS AND EXCEPTIONS

The Dean of Students Office, in cooperation with the Dean of Instruction, process waivers and exceptions to degree, diploma and certificate requirements.

Waivers of the Physical Education requirements will be allowed under the following conditions:

1. Health — a physician may recommend a student be exempt from the physical education requirement. It is suggested, where possible, that the physician recommend some form of adapted or corrective physical activity.
2. Full-time students who are age 30 at the time of matriculation are not required to take physical education.
3. Veterans with two years or more of service and enrolled in the Associate in Arts Degree must earn at least 3 credits of physical education in activity courses as well as 2 credits of health. If enrolled in the Associate in Science Degree, the same veteran must earn at least 2 credits in physical education as well as the 2 credits in health.

A waiver may be granted for other reasons. Special requests for a waiver should be directed to the Dean of Students.

LEARNING RESOURCE CENTER

The learning resource center is the modern concept of the college library. The library concept has been expanded to include all the various resources available for study and instruction. There are four basic areas of service provided in the Learning Resources Center.

LIBRARY SERVICES

The college library will contain more than 20,000 volumes and a periodical collection of more than 300 titles. Books and periodicals have been chosen to provide students with a wide variety of material related to their course work. An effort is also made to encourage a broadening of the students' interests by the inclusion of books, periodicals, and other materials of general and recreational interest.

A collection of reference books and materials has been acquired to provide rapid answers to specific questions. A reference librarian is on duty to assist students in finding specific information, to provide reader advisory service and to help those needing assistance in use of the catalog or periodical indexes.

Appropriate reserve materials are selected by the instructional staff and made available to students needing special resources for particular classes. Such reserve materials may be checked out for short periods of time only.

Selected copies of periodicals and newspapers are stored on microfilm. Microfilm readers are available and provision is made for a reader-printer from which a photo-copy may be obtained by students. A coin-operated photo-copy machine is available for making copies of pages from books and periodicals.

MEDIA SERVICES

Media services available include movie, slide, filmloop, film strip, and overhead projectors; record players and tape recorders for instructional use; individual listening and viewing stations; and campus-wide closed circuit television facilities. An audio-visual materials collection containing all forms of media is maintained to provide both primary and supplemental instruction in all college instructional programs. Many materials for instructional use are produced in the center.

The center contains two instructional facilities for use of audio-visual materials. One of these provides listening and viewing stations for all campus programs; the other contains the mathematics learning laboratory and a general-use testing area.

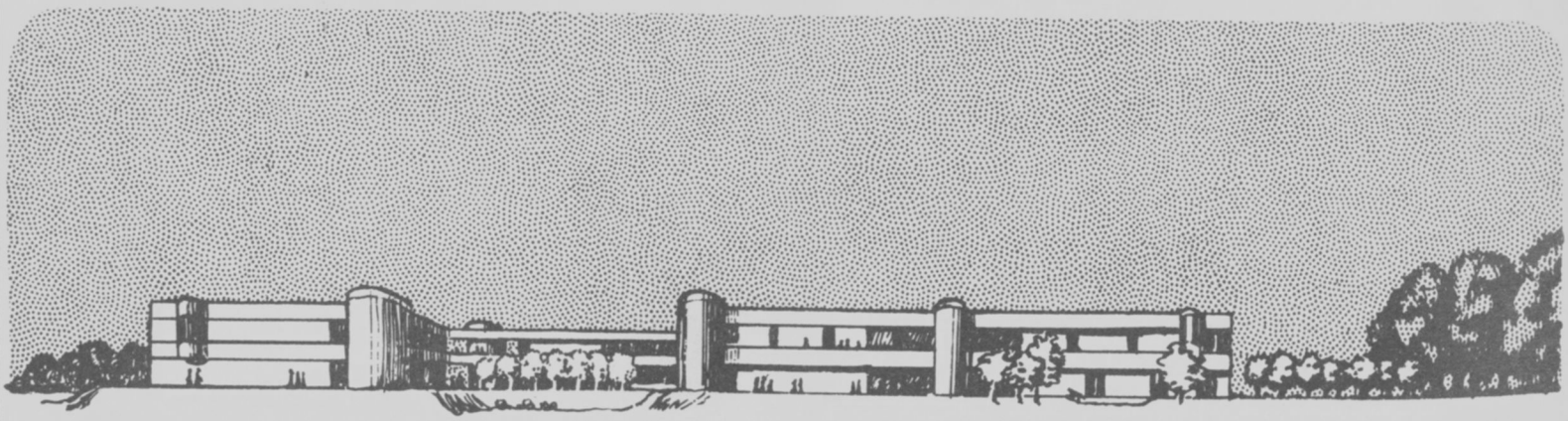
GRAPHIC SERVICES

The college maintains its own printing facilities, producing much of the instructional and operational materials needed by the college. The services of a graphics artist and photographer are available for the preparation of materials.

DEVELOPMENTAL LEARNING CENTER

The college places special emphasis on the learning of basic skills. Group and individual instruction is provided in reading, spelling, and writing. Many members of the college's instructional staff make themselves available to students needing individualized instruction, and facilities are provided in the Learning Resource Center.

As Linn-Benton Community College grows, the Learning Resource Center will assume increasing importance in the total educational program.



PROGRAMS AND COURSES OF STUDY

On the pages which follow are courses which the Board of Education has authorized. Whether or not they are given in any particular college year depends upon prospective enrollment, the availability of finances, instructors, and physical facilities. Consult the fall, winter, spring and summer schedule of classes for courses actually offered in any given quarter.

INTRODUCTION

All offerings of the college, either academic transfer or occupational, are taught as college classes; however, not all courses may be transferred to four-year colleges and universities. Courses which have been approved for transfer by the Oregon State System of Higher Education are numbered from 51-299. Generally, courses numbered 100-110, 200-210, are survey or foundation courses that satisfy group requirements in the language and literature, science, and social science groups. Courses numbered 111-199 are considered freshman level courses and those numbered 200-299 are considered sophomore courses. Non-transfer vocational-technical occupational courses are numbered below 50; for example, 1.253, 6.024, etc. Some courses in the technical area may be transferable to four-year colleges but students are advised to check with a counselor for the transferability of courses and other information regarding their programs.

COMMUNITY EDUCATION

The Community education program is divided into three geographic areas; Benton Center, located in Corvallis; Albany, located on the LBCC campus; East Linn Center, located in Lebanon. There are approximately 150 non-credit courses offered each term in vocational-technical training, home economics, business, creative and language arts, adult basic education, high school continuation and diploma, general education development, field trips and seminars.

The establishment of a course depends upon the availability of a qualified instructor and adequate registration of students (minimum of 12 students).

OCCUPATIONAL & TECHNICAL EDUCATIONAL PROGRAMS

The various and constantly expanding curriculums of the Occupational and Technical Programs represent organized experiences designed to prepare the student for effective employment or advancement in his chosen vocation. All curriculums are periodically reviewed and updated to provide sufficient skills and training broad enough to be applicable to a number of positions having similar occupational requirements.

The needs of the students, industry and the community are considered in providing not only for full-time preparatory study, but evening course offerings for those already employed who seek additional study enabling them to enlarge their competency.

TRANSFER PROGRAMS

LBCC offers transfer classes in most divisions to meet the needs of most majors. The following list indicates major areas where transfer classes are available.

ART –
- Architecture
- Art

BUSINESS –
- Business Administration
- Accounting
- Economics
- Secretarial Sciences

CRIMINAL JUSTICE
- Law Enforcement
- Criminology
- Corrections

EDUCATION –
- Elementary Education
- Business Education
- Physical Education & Health

HOME ECONOMICS –

SCIENCE –
- Agriculture
- Fisheries Biology
- Wildlife
- Engineering
- Pre-Medical
- Pre-Dental
- Pre-Nursing
- Forestry
- Pre-Veterinary
- Biology
- Chemistry
- Mathematics

SOCIAL SCIENCE –
- Political Science
- Psychology
- Sociology
- History
- Geography
- Anthropology

HUMANITIES
- Literature
- Drama
- Art
- Music
- Philosophy
- Foreign Languages

LANGUAGE ARTS
- Writing
- Speech

The following are examples of programs which may be taken by students wishing to major in a given field of study. Since there is a wide variety of majors and requirements at different four-year schools, students should consult the counseling staff at LBCC for details on specific programs. Catalogs from Oregon's colleges and universities are available in the Counseling Center or in the Learning Resource Center.

Students may transfer up to 108 hours to colleges in the Oregon State System of Higher Education.

BUSINESS ADMINISTRATION

	FRESHMAN YEAR	
BA 101	Introduction to Business	4
Sp 111	Fundamentals of Speech	3
	Mathematics	4
Wr 111-2	English Composition	6
	Science sequence	12
	Humanities sequence	9
	Physical Education	2
HE 250	Personal Health	2
	Electives	

	SOPHOMORE YEAR	
Ec 201-3	Principles of Economics	9
BA 211-3	Principles of Accounting	9
BA 226	Business Law	3
BA 232	Introduction to Business Statistics	3
	Social Science sequence	9
	Physical Education	3
	Electives	

ELEMENTARY EDUCATION

Requirements vary greatly at each of the 4-year colleges. The counseling staff will provide additional information.

	FRESHMAN YEAR	
Wr 111-2	English Composition	6
Sp 111	Fundamentals of Speech	3
Mth 121-3	Mathematics for Elementary Teachers	9
Ed 209	Education Seminar	3
GS 104-6	Physical Science	12
	Humanities sequence	9
	Physical Education	2
HE 250	Personal Health	2
	Electives	
	SOPHOMORE YEAR	
Psy 201-2	General Psychology	6
	History sequence	9
Bi 101-3	General Biology	12
Geog 105-7	Introductory Geography	9
	Physical Education	3
	Electives	

GENERAL SCIENCE

	FRESHMAN YEAR	
Wr 111-2	English Composition	6
	Literature sequence	9
	Mathematics	12
Bi 101-3	General Biology	12
	Physical Education	2
HE 250	Personal Health	2
	Electives	
	SOPHOMORE YEAR	
	Foreign Language or Humanities	9
Ch 104-6	General Chemistry	15
Ph 201-3	General Physics	12
	Social Science sequence	9
	Physical Education	3
	Electives	

GEOLOGY

	FRESHMAN YEAR	
Wr 111-2	English Composition	6
	Literature sequence	9
	Mathematics	12
G 201-3	Geology	12
	Physical Education	2
HE 250	Personal Health	2
	Electives	
	SOPHOMORE YEAR	
Ph 201-3	General Physics	12
Ch 104-6	General Chemistry	15
	Physical Education	3
	Electives	
	Mathematics or Economics	

LAW ENFORCEMENT

	FRESHMAN YEAR	
Wr 111-2	English Composition	6
LE 111-3	Law Enforcement and Society	9
Soc 204-6	General Sociology	9
	Science sequence	12
	Physical Education	2
HE 250	Personal Health	2
	Electives	
	SOPHOMORE YEAR	
Psy 201-3	General Psychology	9
PS 201-3	American Governments	9
Hst 201-3	United States History	9
	Humanities sequence	9
	Electives	

PSYCHOLOGY

	FRESHMAN YEAR	
Wr 111-2	English Composition	6
	Literature sequence	9
	Science or Math sequence	12
	Social Science sequence	9
	Physical Education	2
HE 250	Personal Health	2
	Electives	
	SOPHOMORE YEAR	
Psy 201-3	General Psychology	9
	Second Science sequence	12
	Second Humanities sequence	9
	Physical Education	3
	Electives-Writing recommended	

FORESTRY

	FRESHMAN YEAR	
	(Students transfer at end of the year)	
Bot 201-3	General Botany (or Bi 101-3)	12
Ch 104-6	General Chemistry	15
Mth 200-1	Calculus	8
Wr 111-3	English Composition	9
Sp 111	Fundamentals of Speech	3
	Physical Education	2
HE 250	Personal Health	2

SOCIOLOGY

	FRESHMAN YEAR	
Wr 111-2	English Composition	6
	Humanities	9
	Science sequence or Mathematics	12
	Social Science sequence	9
	Physical Education	2
HE 250	Personal Health	2
	Electives	
	SOPHOMORE YEAR	
Soc 204-6	General Sociology	9
Ec 201-3	Principles of Economics	9
	Foreign Languages or Humanities	9
	Social Science or Science sequence	9
	Physical Education	3
	Electives	

COMMUNITY EDUCATION

The Community Education Division provides a wide variety of educational, cultural and recreational program designed to meet the responsibility of the college to the citizens of the district. Flexibility in timing and subject matter is maintained in order to respond to the needs of the college district. Open communication with the community, the college, its students, the staff, and other educational institutions is maintained to identify and fullfill these needs.

DESCRIPTION

The Community Education Division operates within a defined geographical area and may provide services and activities characterized by the following whenever the need is justified and a qualified instructor is available.

NON-CREDIT ADULT EDUCATION CLASSES

These courses represent the need of the community in personal improvement and may be in the form of occupational extension, recreation, cultural enrichment, home management and many other areas.

HIGH SCHOOL CONTINUATION

Classes are offered in coordination with various high school districts. These classes are offered as night classes for students presently enrolled in a regular high school program. They are not designed as a full high school semester but as a continuation program through which students can make up high school credits.

ADULT BASIC EDUCATION CLASSES

Classes are conducted free to participants and consist largely of basic instruction in reading, writing, and arithmetic.

GENERAL EDUCATION DEVELOPMENT CLASSES

GED Test Preparation classes are offered free to the student who may participate as long as necessary to successfully complete the Equivalency Test.

ADULT HIGH SCHOOL DIPLOMA

In cooperation with local high schools, the College is developing a High School Diploma program designed for the granting of a diploma to students who have met the prescribed requirements for graduation. The diploma may be awarded by either the college or the high school as determined upon admission.

IN-SERVICE

These activities are conducted in the area of teacher training for Adult Education instructors.

FIELD STUDIES

Instructional tours are conducted in response to the interests and concerns of the community.

VOCATIONAL TRAINING for the DISADVANTAGED & HANDICAPPED

This is a special program containing two broad areas. One area is designed to offer vocational training to those disadvantaged and handicapped people who are being aided by public and private agencies such as Vocational Rehabilitation Division, and Associations for Retarded Children, and who may not be able to benefit from the regular college curriculum. The second area is a training program for work supervisors of disadvantaged and handicapped people. The training programs are developed for each individual to help himself reach his training potential with the eventual goal of self-support and employment.

APPRENTICESHIP

Apprenticeship is a two-fold program. The indentured apprentice is employed as a learner of skills through on-the-job work experience, and receives related (classroom) training. Classes are currently being offered for the following trades:

Carpenter
Industrial Maintenance Mechanic
Industrial Millwright
Industrial Pipefitter
Industrial Weldor
Inside Wireman
Manufacturing Plant Electrician
Power Lineman

Being an indentured apprentice is a condition for entering related training classes. Procedures for becoming an indentured apprentice are regulated by federal and state laws, and implemented by local apprenticeship committees. Information on entrance procedures and requirements for apprenticeship is available from the Oregon State Bureau of Labor, Oregon State Employment Service or apprentice coordinator.

Upon completion of the required program, the apprentice is moved to journeyman status, and is eligible to take a licensing examination if required. Linn-Benton Community College also provides the journeyman with an Associate in Science Degree option.

This degree is available only to journeymen (recognized by the Bureau of Labor, Apprenticeship and Training Division) who seek to expand and enhance the learning they received through apprenticeship.

Recognized journeymen will be granted 45 credits towards this Associate Degree. An additional 45 credits must be earned, including 18 credits in General Education. The remaining 27 credits may be earned in one of the following ways:

1. Current apprentices will earn credits in their related training classes.
2. Journeymen entering the program may select supplemental classes from the Industrial-Technical Division, Mathematics and Science Division, or Business Division (Supervisory Training Department.

Further information on the Industrial Technology degree is available from the Counseling Center or apprentice coordinator.

COURSE DESCRIPTIONS

9.060 Carpenter Apprenticeship 9 cr/yr 144 contact hrs.

This is an eight-term related training class which covers the national training program for apprentice carpenters.
Prerequisite: Registered carpenter apprentice or consent of apprenticeship coordinator.

9.077 Power Lineman Apprenticeship 9 credits per year

This is a six-term reading and conference related training class which covers the National Electrical Course for Apprentice Lineman.
Prerequisite: Registered Power Lineman Apprentice.

MANUFACTURING PLANT ELECTRICIAN

The following courses have the prerequisite of being a Registered Manufacturing Plant Electrician Apprentice or the consent of the apprenticeship coordinator. The courses should be taken in sequence.

9.083 Introduction to Electricity 6 hrs. 6 credits
The introductory course to electricity, with emphasis on the Electron Theory, electrical terminology, magnetism and electromagnetism. Ohm's and Kirchoff's Laws will be developed and applied in analysis of series, parallel, and series-parallel circuits.

9.084 Alternating Current Circuit Components 6 hrs. 6 credits
The effect, in an A-C circuit, of inductance, capacitance, transformers, capacitors will be determined with emphasis on Lenz's law. Practical consideration of use, care, and operation of inductive and capacitive devices in the field.

9.085 Alternating Current Circuits 6 hrs. 6 credits
Vector representation of sine wave quantities as applied to A-C circuit analysis will be developed prior to the analysis of series and parallel LR, RC, LC, LCR circuits and series and parallel resonance.

9.086 Electrical Instruments and Batteries 6 hrs. 6 credits
The theory of operation and the proper use and care of ammeters, voltmeters, ohmmeters, megohmmeters, wattmeters, oscilloscopes, multimeters, (VOM) and vacuum-tube voltmeters (VTVM) will be developed and demonstrated. Theory of operation and care of batteries and other non-mechanical voltage sources.

9.087 Electric Generators 6 hrs. 6 credits
Theory of operation, proper care and use of D-C and A-C generators will be developed and demonstrated. Theory of single and three phase generation with the Vector representation of wye and delta connections.

9.088 Electric Motors 6 hrs. 6 credits
Theory of operation, proper care and use of D-C and A-C motors and necessary control circuit wiring will be developed and demonstrated using actual manufacturing performance specifications.

9.089 Industrial Electronics I 6 hrs. 6 credits
Basic fundamentals of electronics as specifically applied to industrial applications including rectifiers, filters, amplifiers, tubes, transistors, diodes, semiconductor theory, time-delay relays.

0.090 Industrial Electronics II 6 hrs. 6 credits
Applying knowledge of basic electronic circuits acquired in Industrial Electronics I to more complex circutry—basically as related to motor control.

9.091 Industrial Electronics III 6 hrs. 6 credits
Continuation and application of knowledge acquired in Industrial Electronics I and II or high speed light and register controls, closed loop servo mechanism systems—frequency response of servo systems, servo analysis and all types of electronic controls for industrial welding.

9.092 Industrial Electrical Code I 6 hrs. 6 credits
Comprehensive study of the National Electric Code including definitions, wiring design and protection, wiring methods and materials.

9.093 Industrial Electrical Code II 6 hrs. 6 credits
Comprehensive study of the National Electric Code including equipment for general use and special occupancies.

9.094 Industrial Electrical Code III 6 hrs. 6 credits
Comprehensive study of National Electric Code including special equipment, special conditions, communication systems, and preparation for taking state examination for Manufacturing Plant Electricians.

GENERAL INDUSTRIAL MAINTENANCE

9.072 Industrial Maintenance Procedures I 3 hrs. 3 credits
Designed to acquaint students with various factors of industrial maintenance, it will include study of hand and stationary tools, maintenance accounting, maintenance organization and operation, fundamentals of labor-management relations and industrial lubrication.

9.073 Industrial Maintenance Procedures II 3 hrs. 3 credits
A continuation of 9.072, includes industrial environmental control, chemicals and toxicity, use of materials and industrial safety practices.

9.124 Steel Square 1 credit 2 hrs/wk 5 wks
The uses of the steel square as applicable to industrial maintenance.

9.125 Transit 1 credit 2 hrs/wk 5 wks
The uses of the transit as applicable to industrial maintenance.

9.126 Application of Strength of Materials 3 hrs. 3 credits
This course covers the mechanics dealing with the action of metals upon each other involving forces and stresses of these structures. Three major factors will be included: metals, time, force. The mechanical properties of metals will be given special emphasis as to how specific metals relate to service performance.

9.127 Practical Maintenance Metallurgy 3 hrs. 3 credits
A study of metals as they are used in the fabrication and maintenance of tools, equipment, and structures in industry. Metals will be classified according to alloy composition, structural properties, and service performance. Structures will be fabricated to examine types of possible defects and causes of metal failure.

9.128 Vacuum Technology 3 hrs. 3 credits
This course will encompass several phases of vacuum technology starting with very basic terminology and ending with applications and equipment selection. Maintenance of pumps and systems will be stressed to give the student a basic working knowledge of the process technology in the vacuum industry.

9.138 Industrial Engines Repair 3 hrs. 3 credits
To acquaint students with the day to day maintenance of internal combustion engines found in industry.

9.141 Industrial Electricity 3 hrs. 3 credits
To acquaint non-electrical industrial maintenance personnel with various aspects of electricity. Will include electrical terminology, basic theory, practical usage, and safety. A pragmatic approach will be utilized in electrical theory presentation with mathematical application.

9.165 Industrial Fluid Power I 3 hrs. 3 credits
An introduction to the principles of fluid power to acquaint students with fundamental mechanics and design as applied to fluid power systems. Will cover working components such as cylinders, valves and pumps, their design, application, operation and maintenance.

9.166 Industrial Fluid Power II 3 hrs. 3 credits
A continuing study of fluid power components, theory, mathematics and formulas. Industrial plant use of control circuits and hookups of fluid power systems.
Prerequisites: Industrial Fluid Power I.

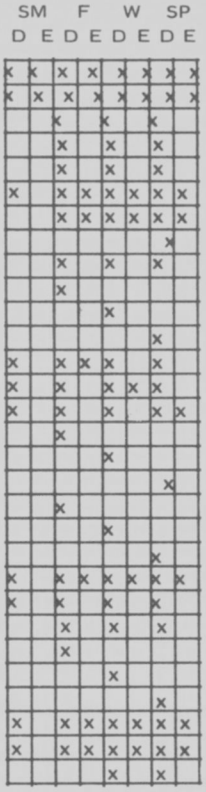
BUSINESS DIVISION

	SM D	F E	D E	W D	E D	SP E	
BA 101 Intro. to Business	x	x	x	x	x	x	x
BA 211 Principles of Accounting I	x	x	x	x			
BA 212 Principles of Accounting II	x			x	x	x	
BA 213 Principles of Accounting III						x	x
BA 214 Business Communications		ON DEMAND					
BA 217 Basic Acc. & Fin. Analysis		ON DEMAND					
BA 226 Business Law				x			
BA 232 Intro. to Bus. Statistics						x	
SS 111 Stenography I	x	x	x	x	x	x	x
SS 112 Stenography II		x	x	x	x	x	x
SS 113 Stenography III		x	x	x	x	x	x
SS 211 Applied Stenography I		x		x		x	
SS 212 Applied Stenography II		x		x		x	
SS 213 Applied Stenography III		x		x		x	
SS 121 Typing I	x	x	X	x	x	x	x
SS 122 Typing II	x	x	x	x	x	x	X
SS 123 Typing III	x	x	x	x	x	x	x
SS 124 Typing Skill Building	x	x	x	x	x	x	x
2.501 Typing I	x	x	x	x	x	x	x
2.502 Typing II	x	x	x	x	x	x	x
2.503 Typing III	x	x	x	x	x	x	x
2.504 Typing IV		x	x	x	x	x	x
2.505 Typing Skill Building	x	x	x	x	x	x	x
2.541 Stenography I (Gregg)	x	x	x	x	x	x	x
2.542 Stenography II (Gregg)							
2.543 Stenography III (Gregg)		x	x	x	x	x	x
2.541 Stenography I (Machine Shorthd.)		x	x	x	x	x	x
2.542 Stenography II (Machine Shorthd.)		x	x	x	x	x	x
2.543 Stenography III (Mach. Shthd.)		x	x	x	x	x	x
2.545 Applied Stenography I		x		x		x	
2.546 Applied Stenography II		x		x		x	
2.547 Applied Stenography III		x		x		x	
2.551 Business Correspondence				x		x	
2.548 Stenography IV		ON DEMAND					
2.528 Clerical Office Procedures	x			x		x	
2.521 Office Machines	x	x		x		x	
2.522 Advanced Office Machines	x			x		x	
2.515 Business Mathematics	x	x		x		x	
2.530 Practical Accounting I	x	x	x	x		x	
2.531 Practical Accounting II	x	x		x	x	x	
2.532 Practical Accounting III	x	x		x		x	x
2.534 Cost Accounting				x			
9.743 Income Tax Preparation			x				
2.222 Financial Management						x	
0.660 Personal Finance						x	
2.119 Business Management		x		x		x	

	SM D	F E	D E	W D	E D	SP E	
2.110 Principles of Salesmanship		x					
2.131 Elements of Marketing				x			
2.134 Retail Merchandising						x	
2.516 Intro. to Business Statistics				x			
2.518 Business Law				x		x	
1.524 Applied Economics		x				x	
1.500 Employer-Employee Relations		ON DEMAND					
2.585 Management Decision Simulation					x	x	
2.751 Personal Develop. for the Prof. Man		x				x	
2.748 Pers. Dev. for the Bus. & Prof. Woman	x	x		x		x	
2.613-5 On-the-Job Training (Sec.)	x	x		x		x	
2.710-2 On-the-Job Training (Bus. Man.)	x	x		x		x	
2.631-3 Organizational Work Exp.	x	x		x		x	
DATA PROCESSING							
2.509 Introduction to Data Processing	x	x	x	x		x	x
2.558 Introduction to Programming	x	x	x	x	x	x	
2.565 Documentations Procedures				x			
2.562 Micro-Language I				x			
2.563 Micro-Language II						x	
2.575 Systems & Procedures						x	
2.566 Operating Systems Concepts		x					
2.569 Macro-Language I		x					
2.570 Macro-Language II				x			
2.578 Programming Con. & Tech.				x			
2.580 Application Programs				x			
2.582 Data Pro. Field Project	x	x		x		x	
2.508 Keypunch Operation	x	x		x		x	
SUPERVISORY TRAINING							
9.500 Elements of Supervision			x				
9.501 Written Com. for Supervisors					x		
9.502 Basic Psychology for Supervisors					x		
9.503 Oral Communication for Super.			x				
9.504 Dev. the Employees thru Train.							x
9.505 Report Writing for Supervisors		ON DEMAND					
9.506 Human Relations(Dev. Sup. Ldrshp)							x
9.507 Read. Improv. for Super.		ON DEMAND					
9.508 Labor-Management Relations		ON DEMAND					
9.509 Industrial Economics		ON DEMAND					
9.512 Meth. Improv. for Sup. (Work Simp)							x
9.514 Cost Cont. for Super.			x				
9.516 Super. Respon. for Mgt. of Pers.		ON DEMAND					
9.518 Organization & Management					x		
9.520 Job Analysis for Wge. Ad.		ON DEMAND					
9.522 Safety Training & Fire Prevention		ON DEMAND					
9.524 Management Cont. & the Super.		ON DEMAND					

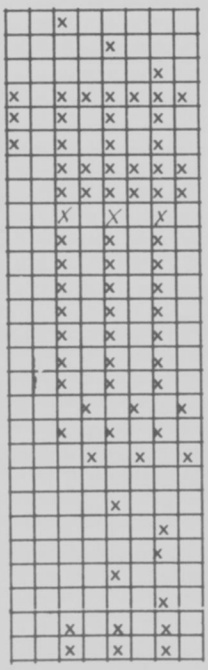
HUMANITIES DIVISION

LANGUAGE ARTS



Wr 111
WR 112
WR 113
9.026 Journalism
0.655 Basic English
1.101 Comm. Sk. I
1.104 Comm. Sk. II
1.112 Tech. Rept. Wr.
0.663 Study Sk. Seminar (St. Sk.)
Eng 101
Eng 102
Eng 103
Eng 104
Eng 105
Eng 106
Eng 107
Eng 108
Eng 109
Eng 253
Eng 254
Eng 255
0.656 Dev. Rdg.
0.664 St. Sk. Seminar Read.
RL 50-2 1st Year French
Ph 201
Ph 202
Ph 203
Sp 111
Sp 112
Sp 113

CREATIVE ARTS



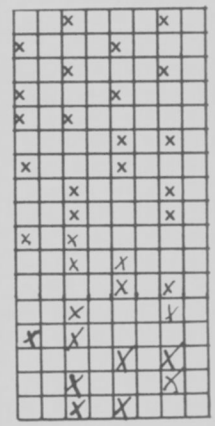
Ar 201
Ar 202
Ar 203
Ar 290 Painting
Ar 291 Drawing
Ar 292 Water Color
Ar 236 Jewelry & Metal
Ar 196 Basic Design
9.255 Commercial Art
Ar 293 Sculpture
Sp 250 Theater Workshop
Sp 229 Oral Interp.
Mus 51 Basic Voice
Mus 190 Perf. Studies
Mus 190 Perf. Studies Voice
Mus 197C Concert Choir
Mus 197S Swing Choir
Mus 297 C Concert Choir
Mus 297S Swing Choir
Mus 201 Intro. to Mus. & Its Lit.
Mus 202
Mus 203
Mus 111
Mus 112
Mus 113
Basic Folk Guitar
Fund. of Music

INDUSTRIAL-TECHNOLOGY DIVISION

AUTO BODY REPAIR

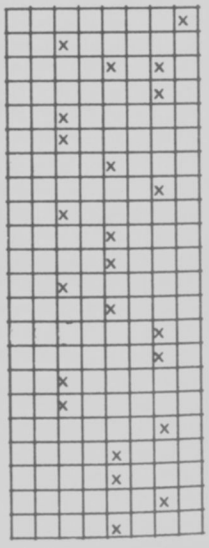
3.397 Auto Metalwork I
3.511 Auto Body Repair I
3.512 Auto Body Repair II
3.513 Auto Body Repair III
3.514 Auto Body Repair IV
3.515 Auto Body Repair V
3.516 Auto Body Repair VI
3.517 Frame Straightening & Alignment
3.519 Auto Metalwork II
3.520 Estimating & Shop Management I
3.521 Estimating & Shop Management II
3.524 Glass, Trim, & Upholstery
3.528 Insurance Claims & Adjusting

AUTOMOTIVE TECHNOLOGY



3.278 Transmissions I
3.280 Transmissions II
3.290 Chassis I
3.292 Chassis II
3.308 Fundamentals of Auto. Elec.
3.324 Tune-up & Diagnosis
3.329 Auto. Rpr. Practices I
3.331 Auto. Rpr. Practices II
3.332 Automotive Service Management
3.334 Internal Combustion Eng.
3.335 Automotive Electricity
3.350 Selling Principles & Techniques
3.360 Auto. Mach. Shop
3.364 Fuels & Carburation
3.370 Auto. Brakes
3.375 Heat Exch. & Air Cont.
4.130 Machine Process

DRAFTING TECHNOLOGY

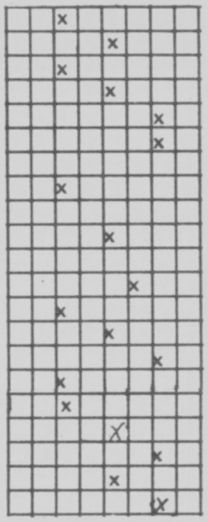


3.429 Bleprt. Rdg. for the Con. Trades
4.100 Blprt. Rdg. & Sketching
4.101 Drafting & Blueprint I
4.105 Drafting & Blueprint II
4.109 Technical Sketching
4.110 Drafting I
4.111 Drafting II
4.112 Drafting III
4.114 Architectural Drafting
4.115 Presentation Drawing
4.116 Architectural Planning
4.119 Machine Drafting
4.121 Electronics Drafting
4.123 Technical Illustration
4.125 Project Drafting
4.126 Mechanical Design Principles
4.127 Industrial Practices
4.148 Practical Descriptive Geometry
9.053 Drafting Procedures
3.490 Applied Mechanics
3.494 Construction Methods & Materials
3.498 Product Design

SM F W SP
D E D E D E D E

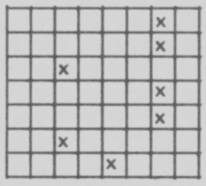
ENVIRONMENTAL TECH.

6.101 Intro. to Environ. Tech.I
6.102 Intro. to Environ. Tech II
6.115 Microbiology for Environ. Control
6.120 Principles of Ecology
6.200 Solid Wastes Disposal
6.205 Seminar
6.216 Prin. of Treatment for Air, Water & Solid Waste I
6.217 Prin. of Trtmt. for Air, Water & Solid Waste II
6.218 Prin. of Trtmt. for Air, Water & Solid Waste III
6.226 Air & Water Analysis I
6.227 Air & Water Analysis II
6.228 Air & Water Analysis III
6.235 Practical Physics & Hydraulics
6.240 Air Pollution Control I
6.241 Air Pollution Control II
6.242 Air Pollution Control III
6.289 Environ. Tech. Problems I
6.290 Environ. Tech Problems II



GENERAL INDUSTRIAL-TECHNICAL

3.425 Employ. Search Tech.
3.444 Welding Metallurgy
3.462 Industrial Electricity
4.108 Industrial Safety
4.120 Fundamentals of Specifications
4.127 Industrial Practices
4.130 Machine Processes



MACHINE TECH.

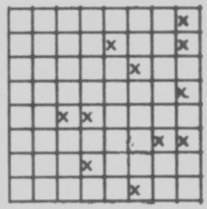
3.403 Machine Tools I
3.404 Machine Tools II
3.405 Machine Tools III
3.406 Machine Tools IV
3.407 Machine Tools V
3.408 Machine Tools VI
3.471 Cost Estimating

METALLURGICAL TECH.

4.161 Materials Testing I
4.162 Materials Testing II

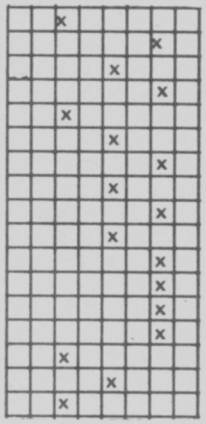
SM F W SP
D E D E D E D E

4.163 Materials Testing III
6.276 Physical Metallurgy
6.281 Non-Destructive Testing I
6.282 Non-Destructive Testing II
6.293 Intro. to Metallurgy
6.294 Process Metallurgy
6.298 Metallography I
6.299 Metallography II



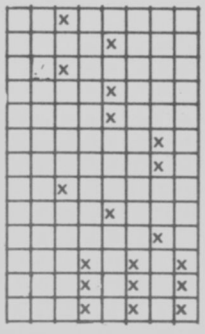
WASTEWATER TECH.

6.114 Sanitary Microbiology I
6.115 Sanitary Microbiology II
6.151 Wastewater Tech I
6.152 Wastewater Tech II
6.153 Wastewater Tech III
6.154 Wastewater Tech IV
6.155 Wastewater Tech V
6.158 Sanitary Seminar I
6.159 Sanitary Seminar II
6.161 Wastewater Management I
6.162 Wastewater Management II
6.165 Wastewater Operations Proj.
6.168 In-Plant Practicum I
6.174 Sanitary Chemistry I
6.175 Sanitary Chemistry II
6.176 Sanitary Chemistry III
6.235 Hydraulics & Prac. Physics



WELDING

4.240 Basic Arc Welding
4.241 Intermediate Arc Welding
4.242 Basic Oxyacetylene Welding
4.243 Intermed. Oxyacetylene Welding
4.245 Layout Procedures for Welding
4.246 Advanced Arc Welding
4.250 Advanced Oxyacetylene Weld.
4.151 Welding I
4.152 Welding II
4.153 Welding Seminar
9.148 Prepar. for Welder Certification
9.151 Begin. Weld. of (Evn. Adult Ext.)
9.152 Advan. Weld. (Ev. Adult Ext.)



OCCUPATIONAL SERVICES DIVISION

AGRICULTURE

		SM D	SM E	F D	F E	W D	W E	SP D	SP E
8.100	Survey of Agriculture			x					
8.120	Seed Technology					x			
8.121	Seed Cleaning					x			
8.125	Soils I			x					
8.126	Soils II					x			
8.127	Soils III							x	
8.130	Agriculture Chemicals					x			
8.131	Pest Control			x					
8.135	Turf Management I			x					
8.136	Turf Management II					x			
8.137	Turf & Plant Establishment			x					
8.138	Irrigation & Drainage			x					
8.140	Landscape Management			x					
8.141	Landscape Planning					x			
8.165	Plant Science			x					
8.180	Warehouse Management							x	
8.188	Ag Equipment Maintenance					x			
8.230	Work Experience (Agriculture)							x	
9.813	Agriculture Chemicals						x		
9.814	Soils & Fertilizers						x		
9.822	Artificial Insemination				x				
9.817	Intro. to Animal Science				x				

CRIMINAL JUSTICE STUDIES

		SM D	SM E	F D	F E	W D	W E	SP D	SP E
LE 111-3	Law Enforce. & Society			x	x	x	x	x	x
LE 211	Administration of Crim. Justice					x			
CJS 5.220	Arrest, Search & Seizure							x	
CJS 5.221	Criminal Investigation							x	
CJS 5.222	Law of Evidence						x		
CJS 5.223	Criminal Law					x			
CJS 5.224	Patrol Procedures			x					
CJS 5.225	Traffic Procedures						x		
CJS 5.229	Counseling & Interviewing								x

		SM D	SM E	F D	F E	W D	W E	SP D	SP E
CJS 5.230	Fund. of Crime & Delinquency			x					
CJS 5.231	Civil Procedure								x
CJS 5.232	Juvenile Law & Procedures						x		
CJS 5.233	Institutions and Agencies				x				

DENTAL

		SM D	SM E	F D	F E	W D	W E	SP D	SP E
5.445	Intro. to Dental Assisting	x							
5.453	Dental Pathology					x			
5.461	Dental Radiology I			x					
5.462	Dental Radiology II					x			
5.463	Dental Radiology III							x	
5.484	Dental Materials/Lab I			x					
5.485	Dental Materials/Lab II					x			
5.491	Dental Office Records			x		x			
5.494	Clinical Practice I			x					
5.495	Clinical Practice II					x			
5.505	Dental Specialities					x			
5.510	Office Practicum							x	
5.510	Office Practicum Seminar							x	

NURSING

		SM D	SM E	F D	F E	W D	W E	SP D	SP E
5.711	Nursing I			x					
5.712	Nursing II					x			
5.713	Nursing III							x	
5.726	Nursing			x					
5.727	Nursing					x			
5.728	Nursing							x	
5.721	Nursing IV			x					
5.722	Nursing V					x			
5.723	Nursing VI							x	
5.729	Nursing							x	

PHYSICAL EDUCATION DIVISION

	SM D	SM E	F D	F E	W D	W E	SP D	SP E
PE 185 Badminton (Beginning)	x		x		x		x	
PE 185 Badminton (Intermediate)	x		x		x		x	
PE 190 Basketball (Advanced)					x		x	
PE 190 Basketball (Intermediate)	x		x		x		x	
PE 190 Basketball (Beginning)			x		x			
PE 190 Basketball Conditioning			x					
PE 185 Bowling (Beginning)	x		x		x		x	
PE 185 Bowling (Intermediate)	x		x		x		x	
PE 185 Bowling (Advanced)	x		x		x		x	
PE 180 Body Conditioning (Women)	x		x		x		x	
PE 190 Body Conditioning (Men)			x		x		x	
HE 252 First Aid				x		x		x
PE 190 Flag Football			x					
PE 185 Golf (Beginning)	x		x				x	
PE 185 Golf (Intermediate)	x		x				x	
PE 185 Golf (Advanced)							x	
PE 180 Gymnastics (Men)			x					
PE 190 Gymnastics (Women)					x			
9.601 Gymnastics Judging			x					
PE 190 Handball	x		x		x		x	
HE 250 Personal Health	x		x		x	x	x	
PE 131 Intro. to PE	x							
PE 185 Jogging	x		x				x	
9.317 Multi Media First Aid	x		x		x			
PE 185 Lifesaving					x			
PE 190 Softball							x	
PE 185 Swimming (Beginning)			x		x		x	
PE 185 Swimming (Intermediate)			x		x		x	
PE 185 Swimming (Advanced)			x		x		x	
PE 180 Tennis (Women)	x		x		x		x	
PE 190 Tennis (Men)	x		x				x	
PE 180 Volleyball (Women)	x		x		x		x	
PE 190 Volleyball (Men)	x		x		x		x	
PE 185 Water Safety Instruction								x
PE 190 Wrestling					x			

SCIENCE & MATHEMATICS DIVISION

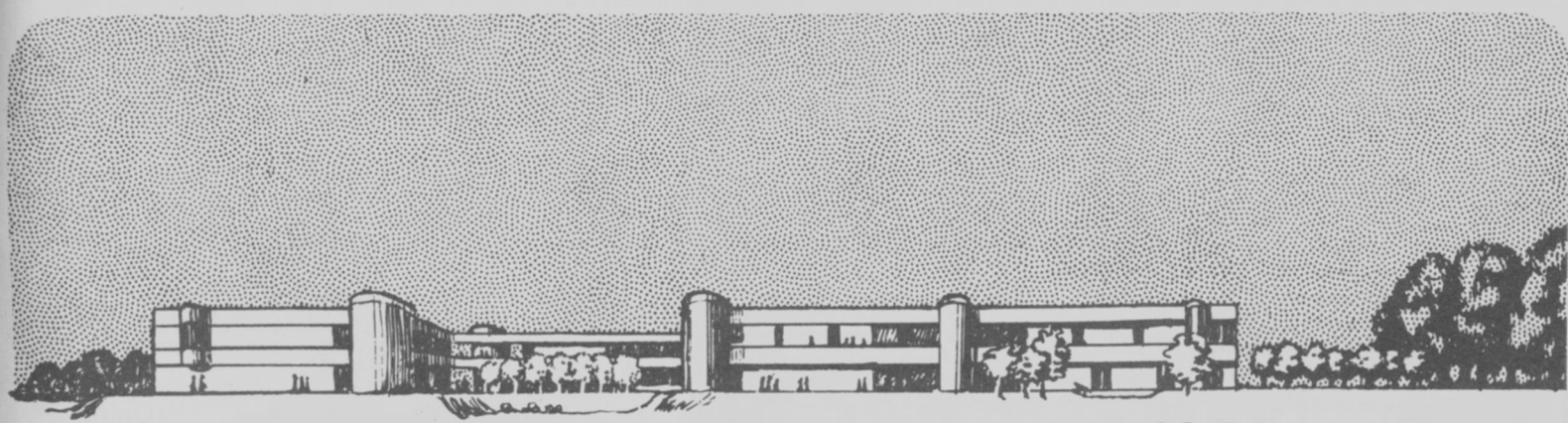
MATHEMATICS	SM D	SM E	F D	F E	W D	W E	SP D	SP E
1.110 Elements of Algebra	x		x	x	x	x	x	x
Mth 100 Intermediate Algebra	x		x	x	x	x	x	x
Mth 101 College Algebra	x		x	x	x	x	x	x
Mth 102 Trigonometry	x		x		x	x	x	x
Mth 103 Probability & Statistics							x	
Mth 110 Analytic Geometry			x	x			x	
Mth 121 Math for Elementary Teachers			x					
Mth 122 Mth for Elementary Teachers					x			
Mth 123 Mth for Elementary Teachers							x	
Mth 161 Mth for Non-Science Majors			x					
Mth 162 Mth for Non-Science Majors					x			
Mth 163 Mth for Non-Science Majors							x	
Mth 200 Calculus			x		x			
Mth 201 Calculus					x		x	
Mth 202 Calculus			x				x	
Mth 203 Calculus					x			
Mth 233 Intro. to Num. Computation							x	
4.145 Industrial Math I			x	x	x		x	
4,146 Industrial Math II					x	x	x	
4.147 Industrial Math III							x	x
6.261 Technical Math I			x					
6.262 Technical Math II					x			
6.263 Technical Math III							x	
6.337 Slide Rule			x		x		x	
0.655 Study Skills Seminar	x		x		x		x	
0.668 Basic Mathematics	x	x	x	x	x	x	x	x
Ed 209 Practicum Teaching Mathematics			x		x		x	

SCIENCE

	SM D	SM E	F D	F E	W D	W E	SP D	SP E
Bi 101 General Biology	x		x	x				
Bi 102 General Biology	x				x	x		
Bi 103 General Biology	x						x	x
Bi 211 Biology for Majors			x					
Bi 212 Biology for Majors				X				
Bi 213 Biology for Majors							x	
Bot 201 General Botany			x					
Bot 202 General Botany					x			
Bot 203 General Botany							x	
4.201 Integrated Basic Science I	x		x		x			
4.202 Integrated Basic Science II			x		x		x	
4.203 Integrated Basic Science III							x	
4.211 Nutrition I					x			
4.212 Nutrition II			x					
4.205 Basic Chemistry I	x		x					x
4.206 Basic Chemistry II	x				x			
4.230 Analytical Chemistry							x	
Ch 101 General Chemistry			x					
Ch 102 General Chemistry					x			
Ch 103 General Chemistry							x	
Ch 104 General Chemistry			x					
Ch 105 General Chemistry					x			
Ch 106 General Chemistry							x	
Ch 107 General Chemistry Lab						x		
Ch 226 Organic Chemistry			x					
Ch 227 Organic Chemistry					x			
Ch 228 Organic Chemistry							x	
Ch 229 Organic Chemistry Lab							x	
4.300 Practical Physics					x			
4.302 Practical Physics							x	
GS 104 Physical Science			x	x				
GS 105 Physical Science					x	x		
GS 106 Physical Science							x	x
Ph 201 General Physics			x					
Ph 202 General Physics					x			
Ph 203 General Physics							x	
G 201 Geology				x				
G 202 Geology						x		
G 203 Geology								x

SOCIAL SCIENCE DIVISION

	SM D	SM E	F D	F E	W D	W E	SP D	SP E
Anth 101 Gen. Anthropology				x				
Anth 102 Gen. Anthropology						x		
Anth 103 Gen. Anthropology								x
Anth 207 Cultural Anthropology				x				
Anth 208 Cultural Anthropology						x		
Anth 209 Cultural Anthropology								x
Econ 115 Outlines of Econ.								
Econ 201 Prin. of Econ.				x				
Econ 202 Prin. of Econ.						x		
Econ 203 Prin. of Econ.								x
Geog 105 Intro. to Geography			x	x				
Geog 106 Intro. to Geography					x	x		
Geog 107 Intro. to Geography							x	x
Hst 101 Hist. of West. Civ.	x		x			x		
Hst.102 Hist. of West. Civ.	x				x			x
Hst 103 Hist. of West. Civ.	x			x			x	
Hst 201 Hist. of the U.S.			x	x				
Hst 202 Hist. of the U. S.					x	x		
Hst 203 Hist. of the U. S.							x	x
Ps 201 American Gov'ts.			x	x				
Ps 202 American Gov'ts.		x			x	x		
Ps 203 American Gov'ts.							x	x
1.124 American Institutions			x		x		x	
Ed 207 Leadership Seminar			x		x		x	
Ed 209 Leadership Practice			x		x		c	
Psy 111 Personal Development			x		x		x	
Psy 201 Gen. Psychology			x	x	x		x	
Psy 202 Gen. Psychology	x		x		x	x		
Psy 203 Gen. Psychology			x		X		x	x
1.606 Intro. to Psych. & Human Rel.			x	x	x	x	x	x
FL 222 Family Living			x		x			
FL 223 Family Living							x	
Soc 204 Gen. Sociology	x		x		x	x	x	
Soc 205 Gen. Sociology	x				x		x	x
Soc 206 Gen. Sociology	x			x			x	
Interper. Rel. Group			x		x		x	
Ps 205 International Relations			X					



BUSINESS DIVISION

BUSINESS DIVISION

CHAIRMAN: Philip V. Clark.
FACULTY: Illa Atwood, Garland S. Brooks, Maynard N. Chambers, Patsy Chester, Dorothy Hazel, James E. Moran, Stephen Shelton, Alan Schultz, Albert J. Walczak.

Education for business prepares the student vocationally and helps to develop the social and economic attitudes which are essential in establishing the future success of American Youth in our economic system. It offers a knowledge and understanding of business and business methods that will help the student cope with our changing economy.

The Business Division now offers the following types of courses and programs to meet a variety of student needs:

TWO-YEAR PROGRAMS

1. A two-year program in Business Administration leading to an Associate in Arts degree;*
2. A two-year program in Secretarial Science--Business Education leading to an Associate in Arts degree;*
3. A two-year program in Business Management leading to an Associate in Science degree;
4. A two-year program in Secretarial Sciences leading to an Associate in Science degree;
5. A two-year program in Data Processing leading to an Associate in Science degree;
6. A two-year program in Bookkeeping--Clerical leading to an Associate in Science degree;
7. A two-year program in Supervisory Training leading to an Associate of Science degree.

*Students taking these transfer curriculums are urged to discuss their programs with a counselor and to contact the four-year college of their choice should a question arise.

ONE-YEAR PROGRAMS

8. A one-year program in General Business leading to a Certificate of Completion;
9. A one-year program in Secretarial Services leading to a Certificate of Completion;
10. A one-year program in Supervisory Training leading to an Advanced Supervisory Certificate;
11. A one-year Certificate of Completion in Data Processing.

SPECIAL PROGRAMS

12. A short program in Supervisory Training leading to a Supervisory Certificate;
13. Courses to fit the personal or vocational needs of part-time students in the day or evening programs;
14. Varied general business courses for students majoring in other fields who desire some background and specific knowledge in business.

NOTE: Students wishing to take longer than the proposed number of quarters to complete their programs may do so.

BOOKKEEPING—CLERICAL

This curriculum is designed to provide entry-level skills for the student wishing to enter various bookkeeping and clerical occupations. The curriculum provides opportunities for the student to gain a wide breadth of both knowledge and skills which will enhance the student's opportunities for employment and advancement.

FRESHMAN YEAR

0.655	Basic English	3
1.104	Communications Skills II	3
1.606	Introduction to Psychology and Human Relations	3
2.501-3	Typewriting I, II, III	6
2.509	Introduction to Data Processing	3
2.515	Business Math	3
2.521	Office Machines	3
2.528	Clerical Office Procedures	4
2.530-2	Practical Accounting I, II, III	9
2.551	Business Correspondence	3
2.575	Systems and Procedures	3
2.748	Personal Development for the Business & Professional Woman	2
	or	
2.751	Personal Development for the Professional Manager	2
HE 250	Personal Health	2

SOPHOMORE YEAR

The following courses are required for all Bookkeeping-Clerical Majors:

1.112	Technical Report Writing	3
2.631-3	Organizational Work Experience	18
9.743	Income Tax Preparation	3
PE 180/190	Physical Education	1

In addition, Bookkeeping-Clerical majors must select seven of the following courses in order to fulfill the requirements for the Associate Degree.

BA 101	Introduction to Business	4
0.660	Personal Finance	3
1.610	Public Speaking	3
2.119	Business Management	3
2.131	Elements of Marketing	3
2.134	Retail Merchandising	3
2.222	Financial Management	3
2.516	Business Statistics	3
2.518	Business Law	3
2.522	Advanced Office Machines	3
2.534	Cost Accounting	3

BUSINESS MANAGEMENT

The courses in this occupational curriculum are designed to meet the needs of persons preparing for immediate employment in general business occupations.

The successful completion of this course of study should afford the graduate a better entry-level position and lead eventually to middle-management positions. It is especially directed to business management and enterprises in the area of selling goods and services.

The following outline indicates the general course requirements for those seeking the Associate Degree in Business Management.

FRESHMAN YEAR

0.655	Basic English	3
1.104	Communication Skills II	3
1.524	Applied Economics	3
1.610	Public Speaking	3
2.110	Principles of Salesmanship	3
2.501	Typewriting I or proficiency	2
2.515	Business Math	3
2.521	Office Machines	3
2.530-2	Practical Accounting I, II, III	9
2.551	Business Correspondence	3
HE 250	Personal Health	2
PE 180/190	Physical Education	1
BA 101	Introduction to Business (suggested)	4
	Electives, Gen. Ed. & Others	

SOPHOMORE YEAR

OPTION I Organizational Work Experience

The following courses are required for Business Management Majors not involved in On-the-Job programs.

1.112	Technical Report Writing	3
1.606	Introduction to Psychology and Human Relations	3
2.119	Business Management	3
2.518	Business Law	3
2.585	Management Decision Simulation	3
2.631-3	Organizational Work Experience	18
9.743	Income Tax Preparation	3
2.748	Personal Development for the Business & Professional Woman	2
	or	
2.751	Personal Development for the Business & Professional Manager	2

In addition, Business Management majors under this option must take at least two of the following courses:

2.131	Elements of Marketing	3
2.134	Retail Merchandising	3
2.222	Financial Management	3
2.509	Introduction to Data Processing	3
2.516	Introduction to Business Statistics	3
2.534	Cost Accounting	3
2.558	Introduction to Programming	3
2.575	Systems and Procedures	3

OPTION 2 ON-THE-JOB TRAINING

Required Courses:

1.606	Introduction to Psychology & Human Relations	3
1.112	Technical Report Writing	3
2.119	Business Management	3
2.518	Business Law	3
2.585	Management Decision Simulation	3
2.710-2	On-the-Job Training	12
2.748	Personal Development for the Business & Professional Woman	2
	or	
2.751	Personal Development for the Professional Manager	2
9.743	Income Tax Preparation	3

In addition, Business Management majors under this option must take at least five of the following courses:

2.131	Elements of Marketing	3
2.134	Retail Merchandising	3
2.222	Financial Management	3
2.509	Introduction to Data Processing	3
2.516	Introduction to Business Statistics	3
2.534	Cost Accounting	3
2.558	Introduction to Programming	3
2.575	Systems and Procedures	3

GENERAL BUSINESS

This is a one-year program for students not wishing to spend two full years before entering the job market. Upon satisfactory completion of the required courses, and having filed an application with the office of the Registrar, a Certificate of Completion is granted.

The following schedule of courses will lead to the awarding of the Certificate of Completion.

0.655	Basic English	3
1.104	Communication Skills II	3
1.112	Technical Report Writing	3
1.606	Introduction to Psychology & Human Relations	3
1.610	Public Speaking	3
2.110	Principles of Salesmanship	3
2.119	Business Management	3
2.501	Typewriting I	2
2.515	Business Mathematics	3
2.518	Business Law	3
2.521	Office Machines	3
2.530-2	Practical Accounting I, II, III	9
2.551	Business Correspondence	3
2.748	Personal Development for the Business & Professional Woman	2
	or	
2.751	Personal Development for the Professional Manager	2

NOTE: Students wishing to take longer than the proposed three quarters of time may complete these courses during the summer quarter or at their convenience.

SECRETARIAL SCIENCES

The two-year curriculum in secretarial sciences is designed to prepare students for responsible secretarial positions. Serious students with ambition and aptitude will find themselves well qualified for preferred positions in the ever expanding secretarial field, including those positions found in the field of civil service.

Successful completion of this program will result in the awarding of an Associate in Science Degree.

FRESHMAN YEAR

0.655	Basic English	3
1.104	Communication Skills II	3
1.606	Introduction to Psychology & Human Relations	3
2.501-3	Typewriting I, II, III	6
2.515	Business Math	3
2.521	Office Machines	3
2.528	Clerical Office Procedures	4
2.530-1	Practical Accounting I, II	6
2.541-3	Stenography I, II, III	9
2.551	Business Correspondence	3
2.748	Personal Development for the Business & Professional Woman	2
	or	
2.751	Personal Development for the Professional Manager	2
HE 250	Personal Health	2
PE 180/190	Physical Education	1

SOPHOMORE YEAR

OPTION 1

Organizational Work Experience

If the student is not participating in the On-the-Job Training program these courses must be taken.

1.112	Technical Report Writing	3
2.545-7	Applied Stenography I, II, III	9
2.631-3	Organizational Work Experience	18
9.743	Income Tax Preparation	3
PE 180/190	Physical Education	1

In addition to these classes, students must successfully complete any four courses listed below:

0.660	Personal Finance	3
1.524	Applied Economics	3
1.610	Public Speaking	3
2.509	Introduction to Data Processing	3
2.518	Business Law	3
2.522	Advanced Office Machines	3
2.532	Practical Accounting III	3

OPTION 2

On-the-Job Training

1.112	Technical Report Writing	4
2.545-7	Applied Stenography	9
2.613-5	On-the-Job Training	12
9.743	Income Tax Preparation	3
PE 180/190	Physical Education	1

In addition to these classes, students must successfully complete any six of the courses listed below.

0.660	Personal Finance	3
1.524	Applied Economics	3
1.610	Public Speaking	3
2.504	Typewriting IV	2
2.509	Introduction to Data Processing	3
2.518	Business Law	3
2.522	Advanced Office Machines	3
2.532	Practical Accounting III	3

SECRETARIAL SERVICES

This one-year curriculum is designed to provide students with experience and training necessary for general office-secretarial or stenographic work. These courses may also serve to prepare the student for civil service examinations. After satisfactory completion of this program, and having filed an application with the office of the Registrar, the student will be awarded a Certificate of Completion.

0.655	Basic English	3
1.104	Communication Skills II	3
1.606	Introduction to Psychology & Human Relations	3
2.501-3	Typewriting I, II, III	6
2.515	Business Math	3
2.521	Office Machines	3
2.528	Clerical Office Procedures	4
2.530-1	Practical Accounting I, II	6
2.541-3	Stenography I, II, III	9
2.551	Business Correspondence	3
2.748	Personal Development for the Business & Professional Woman	2
	or	
2.751	Personal Development for the Professional Manager	2
	Electives	3

NOTE: Students wishing to take longer than the proposed three quarters of time may complete these courses during the summer quarter or at their convenience.

COURSE DESCRIPTIONS

BA 101 Introduction to Business 4 class hrs/wk 4 credits
A survey course in business with emphasis placed on organization, operation and management. It is intended to orient the student to the field of business and to help him determine his field of major concentration.

BA 211 Principles of Accounting I 3 class hrs/wk 3 credits
Techniques of account construction and preparation of financial statements. Emphasis is on application of problems of recording, measuring income, purchasing, sales, inventories, special journals, and internal control of cash.

BA 212 Principles of Accounting II 3 class hrs/wk 3 credits
Accounting systems and management control, concepts and principles of depreciation, merchandise inventory, evaluation, partnership and corporate accounting, capital stock, investments, dividends.
Prerequisite: BA 211 or consent of instructor.

BA 213 Principles of Accounting III 3 class hrs/wk 3 credits
Control accounting for departments and branches cost accounting for manufacturing plants, income taxes and their effect on business decisions and analysis of financial statements.
Prerequisite: BA 212 or consent of instructor.

BA 214 Business Communications 3 class hrs/wk 3 credits
Study of purpose and effectiveness of communications in business. Analysis and writing in simulated situations.
Prerequisite: Writing 112 or consent of instructor.

BA 217 Basic Accounting and Financial Analysis
3 class hrs/wk 3 credits
A one-term terminal course designed for students not majoring in business. Introduction to the recording, summarization, presentation, and interpretation of accounting data. Emphasis on basic accounting principles and terminology, the accounting cycle, and analysis of financial reports.

BA 226 Business Law 3 class hrs/wk 3 credits
The framework of the law as it affects the businessman, how the law operates, how it is enforced, and how to use the law in business. The origins of law, the relations of business to society and the law, evolution of business within the framework of the law, the historical development and present-day applications of the law of contracts.

BA 232 Introduction to Business Statistics
4 class hrs/wk 4 credits
Modern business-decision theory, and statistics as a tool for business decision making. Primary emphasis on statistical description (tables, charts, and frequency distributions), and the elements of probability; consideration also of modern data processing, index numbers and time series analysis (trend, cyclical, and seasonal adjustments) of business data.
Prerequisite: Math 100 or equivalent.

SS 111 Stenography I 5 class hrs/wk 3 credits
Introduction to theory of Gregg shorthand, including the alphabet, brief forms, phrasing and abbreviating principles.

SS 112 Stenography II 5 class hrs/wk 3 credits
Completion of shorthand theory and review of all principles. Development of ability to construct new outlines rapidly from dictation and to lay a solid foundation for further development of dictation and transcription skill.
Prerequisite: SS 111 or equivalent.

SS 113 Stenography III 5 class hrs/wk 3 credits
Emphasis on further development of speed and accuracy in dictation and transcription. Intensive practice in refining shorthand skills and producing mailable letters.
Prerequisite: SS 112 or equivalent.

SS 211 Applied Stenography I 6 class hrs/wk 3 credits
A thorough and extensive review of Gregg shorthand, advanced principles, phrases and short cuts, dictation covering vocabularies representative of various types of businesses, legal forms, newspapers, and magazine articles. Basic skills of office work are stressed.
Prerequisite: SS 113 or equivalent.

SS 212 Applied Stenography II 6 class hrs/wk 3 credits
A continuation of SS 211 with emphasis on speed, accuracy and secretarial standards.
Prerequisite: SS 211 or equivalent.

SS 213 Applied Stenography III 6 class hrs/wk 3 credits
A continuation of SS 212 with emphasis on speed, accuracy and secretarial standards.
Prerequisite: SS 211 or equivalent.

SS 121 Typewriting I 5 class hrs/wk 2 credits
A course designed for people needing basic techniques review or for those having no previous typing instruction. It covers the basic techniques of the touch system, speed and accuracy, manuscript writing, tabulation, correspondence, and centering. Individualized instruction prevails throughout the entire typing sequence. Students will be given the opportunity to advance at their own rate. No specific class time will be assigned. Specific course requirements are available from the Business Division.

SS 122 Typewriting II 5 class hrs/wk 2 credits
Continued practice in the mastery of the keyboard with emphasis on speed, accuracy, and number proficiency. Review and advanced work in manuscripts, tabulations, business forms, and correspondence. Individualized instruction prevails throughout the entire typing sequence. Students will be given the opportunity to advance at their own rate. No specific class times will be assigned. Specific course requirements are available from the Business Division.
Prerequisite: Typewriting I - SS 121.

SS 123 Typewriting III 5 class hrs/wk 2 credits
Continued units on correspondence, tabulation, business forms, manuscripts, secretarial projects, speed and accuracy, and number proficiency. Individualized instruction prevails throughout the entire typing sequence. Students will be given the opportunity to advance at their own rate. No specific class time will be assigned. Specific course requirements are available from the Business Division.

SS 124 Typing Skill Building 5 class hrs/wk 2 credits
Special emphasis on speed and accuracy. Use of a wide variety of special drills to work on numbers and remedial techniques.
Prerequisite: Typewriting I - SS 121 or equivalent. Permission of Business Division required for enrollment.

0.660 Personal Finance 3 class hrs/wk 3 credits
A thorough study of home financing, installment buying, insurance, investments, wills and other phases of managing family finances.

1.524 Applied Economics 3 class hrs/wk 3 credits
The underlying principles by which business and industry are influenced. Production, income, management, prices, values, markets, money wastes, interests and profits are examples of subjects studied with illustration of how they affect current business situations.

1.550 Employer-Employee Relations 3 class hrs/wk 3 credits
The objective of this course is to provide understanding of the rights and responsibilities of employees. Government laws and regulations covering collective bargaining, other state and federal labor laws, and how labor disputes are negotiated are given consideration. Information on how the problems faced by individuals applying for work and the individual's association with fellow workers and company representatives are covered.

2.119 Business Management 3 class hrs/wk 3 credits
A course designed to allow the student an opportunity to study the management essentials of both merchandising and industrial organization. Emphasis will be placed on the complex problems of marketing, policies, purchasing procedures, financial requirements, budgeting, human relations, physical facilities and government regulations.

2.110 Principles of Salesmanship 3 class hrs/wk 3 credits
An introductory course to the subject of business from the viewpoint of the sales-oriented firm. Includes discussion of the characteristics of the customer, his buying motives and approach, presentation, demonstration and overcoming objections in closing the sale. Emphasis will also be placed on advertising, pre-selling techniques, as well as the various media, copy, illustration and layout.

2.131 Elements of Marketing 3 class hrs/wk 3 credits
A general survey of the nature, significance, and scope of marketing. Emphasis will be placed upon the channels of distribution; the marketing of consumer shopping, specialty and other goods; service marketing; middlemen, wholesaling, shipping and warehousing; standarization, grading and pricing; government regulations of competition.

2.134 Retail Merchandising 3 class hrs/wk 3 credits
A general survey of the principles of efficient retail organization and management. Topics include location and layout, types of store organization, personnel management, credit and collection, store protection and other operating activities.

2.222 Financial Management 3 class hrs/wk 3 credits
A specialized course dealing with financing a business operation. Topics covered will deal with the tax environment, analysis of financial statements, working capital management, and slow and long-term financial planning budgeting and control.
Prerequisite: Practical Accounting II or Principles of Accounting II.

2.501 Typewriting I 5 class hrs/wk 2 credits
A course designed for people needing basic techniques review or for those having no previous typing instruction. It covers the basic techniques of the touch system, speed and accuracy, manuscript writing, tabulation, correspondence, and centering. Individualized instruction prevails throughout the en-

tire typing sequence. Students will be given the opportunity to advance at their own rate. No specific class time will be assigned. Specific course requirements are available from the Business Division.

2.502 Typewriting II 5 class hrs/wk 2 credits
Continued practice in the mastery of the keyboard with emphasis on speed, accuracy, and number proficiency. Review and advanced work in manuscripts, tabulation, business forms, and correspondence. Individualized instruction prevails throughout the entire typing sequence. Students will be given the opportunity to advance at their own rate. No specific class time will be assigned. Specific course requirements are available from the Business Division.
Prerequisite: 2.501 – Typing I or equivalent.

2.503 Typewriting III 5 class hrs/wk 2 credits
Continued units on correspondence, tabulation, business forms, manuscripts, secretarial projects, speed and accuracy, and number proficiency. Individualized instruction prevails throughout the entire typing sequence. Students will be given the opportunity to advance at their own rate. No specific class time will be assigned. Specific course requirements are available from the Business Division.

2.504 Typewriting IV 5 class hrs/wk 2 credits
Additional units on correspondence, business forms, manuscripts, with special job-oriented projects and composition at the typewriter. Emphasis on speed and accuracy improvement and number proficiency. Individualized instruction prevails throughout the entire typing sequence. Students will be given the opportunity to advance at their own rate. No time will be assigned. Specific course requirements are available from the Business Division.
Prerequisite: 2.503 – Typewriting III or equivalent.

2.505 Typing Skill Building 5 class hrs/wk 2 credits
Special emphasis on speed and accuracy. Use of a wide variety of special drills to work on numbers and remedial techniques. Permission of Business Division for enrollment.
Prerequisite: Typing I – 2.501 or equivalent.

2.515 Business Mathematics 3 class hrs/wk 3 credits
This course is designed to give a student the mathematical background needed for general business application. After a review of the fundamental processes including decimals and fractions, the students will be involved in such mathematical calculations as determining percentages, discounts, commission, mark-up, depreciation, and interest.

2.516 Introduction to Business Statistics 3 class hrs/wk 3 credits
A statistical analysis of business and economic data used in controlling operation and in making sound business decisions. Special emphasis is given to assembling statistical data, statistical description, probability, sampling, times series, analysis, index numbers, and tests of significance.
Prerequisite: One year of high school algebra, Mth 1.110 or consent of instructor.

2.518 Business Law 3 class hrs/wk 3 credits
The legal environment of business and principles of contract law. An introduction to the study of law and business, legal reasoning and the evolutionary process of law. Emphasis is placed on the study of business agreements--their formation, operation, performance and discharge.

2.521 Office Machines 5 class hrs/wk 3 credits
Instruction and operating experience on the ten-key adding machine, full keyboard adding machine, printing calculator, rotary calculator, and electronic calculator.

2.522 Advanced Office Machines 5 class hrs/wk 3 credits
A continuation of the initial course in Office Machines, Will include emphasis on building speed as well as practical business applications.
Prerequisite: 2.521.

2.528 Clerical Office Procedures 8 class hrs/wk 4 credits
Instruction in telephone techniques, filing, duplicating machines, transcribing machines, and job interviewing. For five weeks, the students will be employed in a simulated office in the classroom, integrating all of the office skills and procedures.
Prerequisite: 2.502 – Typing II.

2.530 Practical Accounting I 5 class hrs/wk 3 credits
Fundamental principles of double-entry accounting, general journals and ledgers, business forms, simple financial statements, and the completion of the accounting cycle. Specific emphasis on cash receipts and payments, payroll accounting, purchases, sales, promissory notes, and inventories.

2.531 Practical Accounting II 5 class hrs/wk 3 credits
A continuation of Accounting I with an expansion of the accounting cycle to include special journals, ledgers and business forms. A special emphasis will be placed on accounting for a partnership.
Prerequisite: Practical Accounting I - 2.530

2.532 Practical Accounting III 5 class hrs/wk 3 credits
A course in accounting including entries of a nature requiring some analysis and interpretation; entries for promissory notes; adjustments for prepaid, unearned and accrued items; depreciation of assets; the voucher system; payroll records; property sales, and taxes. A special emphasis will be placed on accounting for a corporation.
Prerequisite: Practical Accounting II - 2.531.

2.534 Cost Accounting 3 class hrs/wk 3 credits
A course that relates theory with practical problems in the analysis and control of material, labor and overhead costs in manufacturing. Special emphasis is given to the job cost system, the process cost system, and the standard cost system.
Prerequisite: Practical Accounting II or Principles of Accounting.

2.541 Stenography I (Gregg) 5 class hrs/wk 3 credits
Introduction to Gregg shorthand theory, including the alphabet, brief forms, phrasing, and abbreviating principles.

2.542 Stenography II (Gregg) 5 class hrs/wk 3 credits
Completion of shorthand theory and review of all principles. Development of ability to construct new outlines rapidly from dictation and to lay solid foundations for further development of dictation and transcription skill.
Prerequisite: 2.541 or equivalent.

2.543 Stenography III (Gregg) 5 class hrs/wk 3 credits
Emphasis on further development of speed and accuracy in dictation and transcription. Intensive practice in refining shorthand skills and in producing mailable letters.
Prerequisite: 2.542 or equivalent.

2.541 Stenography I (Machine Shorthand) 5 class hrs/wk 3 credits
Introduction to, and training on, the keyboard and theory of Touch Machine Shorthand with practical applications in sentence and paragraph dictation.

2.542 Stenography II (Machine Shorthand) 5 class hrs/wk 3 credits
Completion of Touch Machine Shorthand theory. Development of ability to take dictation rapidly and the development of transcription skills.
Prerequisite: 2.541 - Machine Shorthand or equivalent.

2.543 Stenography III (Machine Shorthand) 5 class hrs/wk 3 credits
Emphasis on further development of speed and accuracy in dictation and transcription. Intensive practice in refining shorthand skills and in producing mailable letters.
Prerequisite: 2.542 (Machine Shorthand) or equivalent.

2.545 Applied Stenography I 6 class hrs/wk 3 credits
A thorough and extensive review of Gregg Shorthand, advanced principles, phrases and short cuts, dictation covering vocabularies representative of various types of business, legal forms, newspapers, and magazine articles. Basic skills of office work are stressed. Prerequisite: 2.543 and Typewriting 2.503 or equivalent.

2.546 Applied Stenography II 6 class hrs/wk 3 credits
A continuation of 2.545 with emphasis on speed, accuracy and secretarial standards.
Prerequisite: 2.545 or equivalent.

2.547 Applied Stenography III 6 class hrs/wk 3 credits
A continuation of 2.546 with emphasis on speed, accuracy and secretarial standards.
Prerequisite: 2.546 or equivalent.

2.548 Applied Stenography IV 6 class hrs/wk 3 credits
A continuation of 2.547 with emphasis on speed, accuracy and secretarial standards.
Prerequisite: 2.547 or equivalent.

2.551 Business Correspondence 3 class hrs/wk 3 credits
The analysis and composition of the principal types of present-day business letters and reports.
Prerequisite: Basic English and Typing 2.501.

2.585 Management Decision Simulation
3 class hrs/wk 3 credits
This course uses a sophisticated management simulation program which will enable the student to gain practical experience with the decision making process. Market, production, and financial environments are simulated by the computer to enable the student to move rapidly through what could normally take many years of time.

2.613-5 On-the-Job Training (Secretarial)
16 class hrs/wk 4 credits
Supervised employment in a secretarial field such as stenography, office management, records control, etc. The purpose of the employment is to provide a practical experience, related to the student's major field of interest. The employment portion of the weekly seminar also is required.
Prerequisite: Consent of Business Division before registration.

2.631-3 Organizational Work Experience
12.5 class hrs/wk 6 cr.
Simulated work experience built around the operations of an assumed corporation, providing secretarial and clerical services. The students are held responsible for its success or failure.
Prerequisite: Sophomore standing as a business major.

2.710-2 On-the-Job Training (Business Management)
16 class hrs/wk 4 cr.
Supervised employment in positions related to the field of merchandising. Intended to provide practical experience in operations and methods for students preparing for careers in business management. The employment portion shall be a minimum of 16 hours per week. Weekly seminar also is required.
Prerequisite: Consent of Business Division before registration.

2.748 Personal Development for the Business and Professional Woman 3 class hrs/wk 2 credits
A class that makes available to the prospective career woman information concerning self-improvement, appearance, attitude and general business etiquette. The course will include visual and vocal poise, figure control, good grooming techniques, wardrobe planning, employment procedures and interview techniques.

2.751 Personal Development for the Professional Man
3 class hrs/wk 2 credits
A class designed to give prospective business managers information on professional procedures relating to business and office manners. The course will be structured to cover leadership techniques, attitudes, confidence in daily conversation, personal wardrobe, interview techniques and procedures for employment.

9.743 Income Tax Preparation 3 class hrs/wk 3 credits
A course explaining the Federal Income Tax laws in understandable language. The importance of adequate and suitable financial records is expanded upon. Special emphasis is placed on helping the taxpayer compute required reports and taxes due. Special interests (farm, manufacturing, etc.) may be discussed at the option of the class.

DATA PROCESSING

The Business Data Processing curriculum is designed to develop graduates who will be able to successfully enter the job market as application programmers. Working under a true third-generation environment the student will learn to write programs in several different languages and to apply these skills to the solving of actual business problems both within the college and the community. Students finishing the first year of the curriculum should be able to enter the job market as programmer-trainees with at least two languages at their disposal. Students completing the full two-year curriculum will be granted an Associate of Science Degree and will be in a strong position to enter a rapidly-growing job market.

FRESHMAN YEAR		
1.101, 1.104	Communication Skills I, II	6
	or	
WR 111, 112	English Composition	6
1.524	Applied Economics	3
2.509	Introduction to Data Processing	3
2.518	Business Law	3
2.530-2	Practical Accounting I, II, III	9
	or	
BA 211-3	Principles of Accounting I, II, III	15
2.558	Introduction to Programming	3
2.562-3	Micro Language I, II	6
2.565	Documentation Procedures	3
2.575	Systems & Procedures	3
HE 250	Personal Health	2
	Mathematics	4
PE 180-190	Physical Education	1
SOPHOMORE YEAR		
1.606	Introduction to Psychology & Human Relations	3
2.222	Financial Management	3
2.516	Introduction to Business Statistics	3
2.566	Operating Systems Concepts	3
2.569-70	Macro Language I, II (COBOL)	6
2.578	Programming Concepts & Technology	3
2.580	Application Programs	3
2.582	Data Processing Field Project	8
2.585	Management Decision Simulation	3

2.509 Introduction to Data Processing 3 class hrs/wk 3 credits
This course is designed for the interested student to show "how" computers work and their place within the modern business society. The history of data processing, punched card equipment, job-flow, computer architecture and memory design, systems design, numbering systems, and third-generation operating-systems concepts are covered. Open to all students and required for Business Data Processing majors.

2.558 Introduction to Programming 3 class hrs/wk 3 credits
This course provides the student with the opportunity to write computer programs using a procedure or problem oriented language. It serves two main purposes; and 2) provides the student with the means to program a modern computing system. The computer language currently in use in FORTRAN, The topics covered are: input/output, arithmetic statements, transfer and control statements, arrays, and subprograms. This is a required course for all data processing majors.

2.562 Micro-Language I 5 class hrs/wk 3 credits
Students in this course will write programs in the 1130 Assembler Language. Basic Central Processing Unit instructions and input/output concepts will be covered in addition to the use of macro-instructions. Actual programming problems will be assigned
Prerequisite: Introduction to Data Processing and Introduction to Programming. Required for all Business Data Processing majors.

2.563 Micro-Language II 5 class hrs/wk 3 credits
A continuation of the 1130 Assembler Language with emphasis placed on input/output macro-statements and disk-file record structure and uses of disk-file storage techniques.
Prerequisite: Micro-Language I and Documentation Procedures. Required for Business Data Processing majors.

2.565 Documentation Procedures 3 class hrs/wk 3 credits
This course will stress the need for complete accurate documentation within the data processing function. Decision tables, job-flow systems, flow-charting and program flow-charting will be presented with special emphasis on the latter. Should be taken concurrently with Micro-Language I. Required for all Business Data Processing majors.

2.566 Operating Systems Concepts 3 class hrs/wk 3 credits
This course will enable the Business Data Processing major to look at various third-generation Operating Systems and how they are arranged. Special emphasis will be placed on the IBM 1130 Monitor Systems but IBM's DOS/TOS and OS/360 will also be investigated. Operating Systems of manufacturers other than IBM will also be considered. Required for all Business Data Processing majors and should be taken concurrently with Macro-Language I.

2.569 Macro-Language I 5 class hrs/wk 3 credits
This course is designed to introduce the student to a business oriented computer language - COBOL. The IBM 1130 computing system is used to solve problems involving the following COBOL elements: 1) logical decision statements, 2) card input/printer output, 3) perform statement, and 4) one, two, and three level tables.
Prerequisite: Micro-Language II and Operating Systems Concepts.

2.570 Macro-Language II 5 class hrs/wk 3 credits
Additional, advanced COBOL topics are studied with emphasis on the use of mass storage files. The student will be able to write COBOL programs requiring the use of disk input/output with random and sequential access and sub-programs.
Prerequisite: Macro-Language I.

2.575 Systems and Procedures 3 class hrs/wk 3 credits
A look at the roll of the data processing function within a modern business environment and how it can be used to further the goals of the firm. Overall job development and implementation will be studied using the case method approach.
Prerequisite: Permission of instructor.

2.578 Programming Concepts & Technology
3 class hrs/wk 3 credits
This course will acquaint the student with the development of language compilers such as COBOL FORTRAN and BASIC and how a compiler works. It will also look at the systems architecture of several major manufacturers other than IBM so that the student will have job-entry knowledge in many different types of data processing environments. Required for all Business Data Processing majors.
Prerequisite: Macro-Language I and should be taken concurrently with Macro-Language II.

2.580 Application Programs 3 class hrs/wk 3 credits
This course examines several of the "canned programs" provided by software manufacturers. Applications such as PERT, linear programming, statistical routines, matrix operations, commercial subroutine packages, and utility programs via a remote terminal will be studied and implemented.
Prerequisite: Macro-Language I.

2.582 Data Processing Field Project* 3 class hrs/wk 8 credits
A course of instruction and practice of skills and techniques acquired in previous courses within the Business Data Processing curriculum. Individual selected projects from business/industrial organizations within the community are assigned by the instructor. The student is required to plan the project and to carry out all phases of system design, machine programming, design of forms, testing of representative data, and writing of operational procedures. Class time will be utilized to guide the students toward completion of the project and to look to actual data processing solutions to other types of business problems.
*Unscheduled lab and outside study and preparation time totaling a minimum of 200 hours.
Prerequisite: Consent of instructor.

2.508 Keypunch Operation 2 credits
Basic operation of various keypunch machines, and the development of a job-entry level skill on these machines. Students will be responsible for scheduling their time until the desired skill level is reached.
Prerequisite: Permission of Business Division. Introduction to Data Processing (2.509) is also recommended.

SUPERVISORY TRAINING

This program is designed as a series of courses in supervisory methods and techniques. The courses are available to any individual who is currently in a supervisory positon or is preparing for such a position.

These are three options which the student may follow. One requires the completion of four approved courses plus two electives for the Certificate in Supervision. Another requires the completion of ten approved courses plus four electives for an Advanced Certificate of Supervision. The third allows the student in Supervision to graduate with Associate in Science Degree. These programs are described below. Some credit may be allowed for supervision experience.

NOTE: All courses in this area are offered in the evening only and meet one evening per week for 3 hours.

CERTIFICATE IN ADVANCED SUPERVISOR DEVELOPMENT
(45 quarter credits)

9.500	Elements of Supervision	3
9.501	Written Communications for Supervisors	3
9.502	Basic Psychology for Supervisors	3
9.504	Developing Employees through Training	3
9.503	Oral Communications for Supervisors	3
9.504	Developing Employees through Training	3
9.506	Human Relations	3
9.508	Labor-Management Relations	3
9.509	Industrial Economics	3
	Occupational Courses	6
	One course from List A, 3 credits, and 4 courses from List A or B, or 12 credits for supervision experience and courses totaling 12 term units.	

ASSOCIATE IN SCIENCE DEGREE*
(90 quarter hours)

9.500	Elements of Supervision	3
9.501	Written Communications	3
9.502	Basic Psychology for Supervisors	3
9.503	Oral Communications	3
9.504	Developing Employees through Training	3
9.506	Human Relations (Developing Supervisory Leadership)	3
9.508	Labor-Management Relations	3
9.512	Methods Improvement for Supervisors	3
9.514	Cost Control for Supervisors	3
	Two courses from List A	6
	Occupational Courses (15 credits with at least one sequence of three courses in a specific field)	

*Candidates for the degree program must be high school graduates or its equivalent.

ELECTIVE COURSES

General Education courses (12 credits from List B.)
General electives (27 credits) from Lists A or B.

Credit for supervisory experience can be substituted for up to 24 credits of general electives. See Chairman of the Business Division for this information.

CERTIFICATE IN SUPERVISION (18 quarter credits)

9.500	Elements of Supervision	3
9.501	Written Communications for Supervisors	3
9.502	Basic Psychology for Supervisors	3
9.504	Developing Employees through training	3
	Elective (1 course from List A)	3
	Elective (1 course from List A or B)	3

LIST A (Supervisory Development)

Human Relations
Management Controls
Labor-Management Relations
Methods Improvement (Work Simplifications)
Organization and Management
Cost Control
Written Communications
Job Analysis for Wage Administration
Safety Training & Fire Prevention

LIST B (General Education)

General Psychology
Sociology
Social Sciences
Literature
Economics
History (U.S. or Western Civilizations, etc.)
Communications
Technical Report Writing
Reading Improvement

NOTE: Most courses offered by the Community College in the area of General Education can be included in List B.

COURSE DESCRIPTIONS

9.500 Elements of Supervision 3 class hrs/wk 3 credits
A basic introductory course covering in general terms the total responsibilities of a supervisor in industry such as organization, duties and responsibilities, human relations, grievances, training, rating, promotion, quality-quantity control, and mangement-employee relations.

9.501 Written Communications for Supervisors
3 class hrs/wk 3 credits
Review of writing mechanics covering grammar, punctuation, sentence structure and paragraph structure. Business letter writing involving the principles, planning and dictating of letters. Memorandum and bulletin writing with emphasis on format, content, structure, tone and style. Manual writing covering format, content and structure.

9.502 Basic Psychology for Supervisors 3 hrs/wk 3 credits
Course to assist the supervisor in understanding the people with whom he works, with emphasis on the psychological aspects, perceptions, learning processes, emotions, attitudes and personalities.

9.503 Oral Communication for Supervisors
3 class hrs/wk 3 credits
How we communicate. Effective speaking and listening. Kinds of supervisory communications. Saying what we mean, which covers oral versus written communications. Understanding what is communicated as related to intent and effect. Conference leading practice for supervisors.

9.504 Developing the Employees Through Training
3 class hrs/wk 3 credits
The supervisors' responsibility for developing employees through training orientation and induction. Vestibule and on-the-job techniques. Job instruction principles. Apprenticeship training, technical training. Supervisory training and management development. Use of outside agencies. Advisory committees.

9.505 Report Writing for Supervisors 3 class hrs/wk 3 credits
Types of reports: statistical, financial, narrative, technical. Steps in preparing the report. Parts of the report. Techniques of writing. Format, style and organization. Illustrating the report. Practice in writing and evaluating reports in the occupational field of the individual enrollee.

9.506 Human Relations (Developing Supervisory Leadership)
3 class hrs/wk 3 credits
To show the practical application of basic psychology in building better employer-employee relationships by studying human relations techniques.
Prerequisite: Basic Psychology for Supervisors.

9.507 Reading Improvement for Supervisors
3 class hrs/wk 3 credits
General approach to better reading through the proper use of text materials, reading films, tachistoscope and practice. Benefits of better reading, evaluating and analysing what is read, vocabulary improvement, advanced reading tips.

9.508 Labor-Management Relations 3 class hrs/wk 3 credits
The history and development of the Labor Movement. Development of the National Labor Relations Act, the Wagner Act, the Taft-Hartley Act. The supervisor's responsibility for good labor relations. The union contract and grievance procedures.

9.509 Industrial Economics 3 class hrs/wk 3 credits
Significant economic facts. Development of a critical attitude toward industrial economics. Institutions and practices that determine our social environment. Management supervisory-employee relationships to economics and local industry.

9.512 Methods Improvement for Supervisors (Work Simplification) 3 class hrs/wk 3 credits
The supervisor's responsibility for job methods improvement. The basic principles of work simplification. Administration and problems involved. Motion study fundamentals for supervisors.

9.514 Cost Control for Supervisors 3 class hrs/wk 3 credits
How costs are determined in industry. Cost control and its functions. The supervisor's responsibility for costs. Factors in cost control: costs, materials, waste, salvage, quality control, control of time.

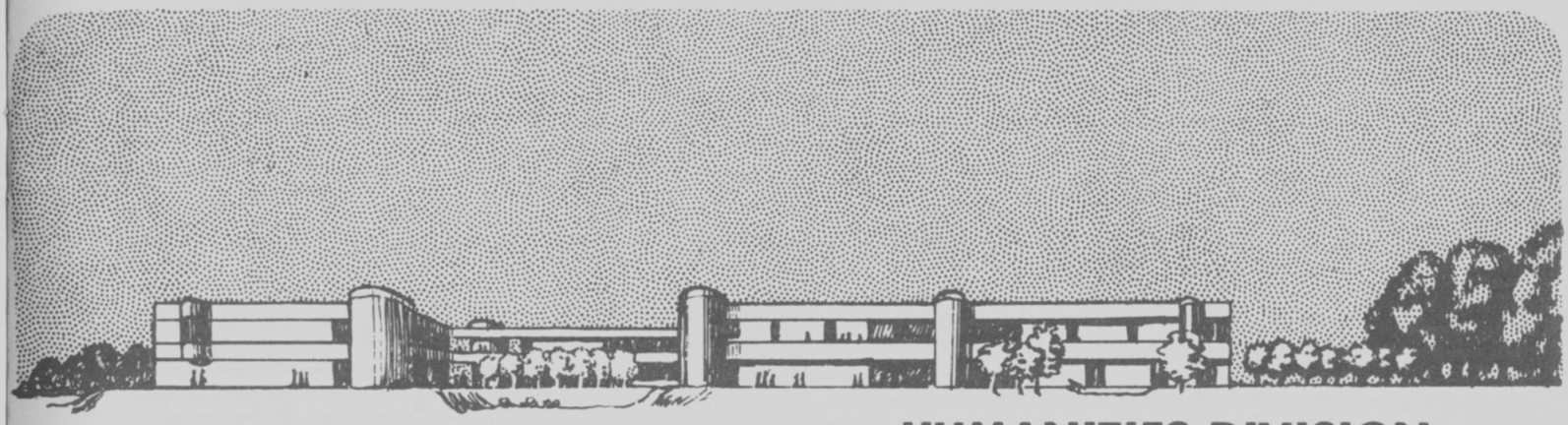
9.516 Supervisor's Responsibility for Management of Personnel
3 class hrs/wk 3 credits
Personnel techniques for which the supervisor is partially responsible and for which he should have some training in carrying out his responsibility selection, placement, testing, orientation, training, counseling, merit rating, promotion, transfer and training for responsibility.

9.518 Organization and Management 3 class hrs/wk 3 credits
The supervisor's responsibility for planning, organizing, directing controlling, and coordinating. Acquaints the supervisor with these basic functions of an organization and his responsibility in carrying them out in accordance with the organization's plan. Establishing lines of authority, function of departments or units, duties and responsibilities, policies and procedures, rules and regulations.

9.520 Job Analysis for Wage Administration
3 class hrs/wk 3 credits
The history of wages, inequalities in rates of pay. Management and union movement toward a "fair wage" plan. The supervisory and job descriptions, job specification, job evaluations and job classification. The wage laid down by the Department of Labor. The Federal Employment Service. Wage administration and the line organization.

9.522 Safety Training and Fire Prevention
3 class hrs/wk 3 credits
Problems of accidents and fire in industry. Management and supervisory responsibility for fire and accident prevention. Accident reports and the supervisor. Good housekeeping and fire prevention. Machine guarding and personnel protective equipment. State Industrial Accident Code and fire regulations. The First Aid Department and the line supervisor's responsibility. Job instruction and safety instruction. Company rules and enforcement. Use of safety committees. Your insurance carrier and the Insurance Rating Bureau. Advertising and promoting a good safety and fire prevention program.

9.524 Management Controls and the Supervisor
3 class hrs/wk 3 credits
Basic principles of controls. Delegation of responsibility through the use of quality control, quantity control, production control, control over materials, control over personnel, organization.



HUMANITIES DIVISION

HUMANITIES DIVISION

CHAIRMAN: Ken Cheney.
FACULTY: Arthur Bervin, Jim Brick, Shirley Call, Tom Chase, Charles Mann, Don Minnick, Barry Startz, Dick West, Barbarajene Williams.

The Humanities, the oldest of all academic disciplines, looks at the total human being, at man--his mind and body. It puts man in focus by relating to him as a complete entity trying successfully and unsuccessfully through the ages to know himself as he searches for meaningful values in changing environments and societies and as he attempts to satisfy those aspirations which reflect not only his individuality but his common humanity with others. It emphasizes the accumulated creations of all men in all times in the best that has been thought and said. And in its perennial preoccupation with human nature in all its levels from the bestial to the divine, it shows us ourselves. All this is best reflected in the arts and letters where the shared experiences common to all men are stored in literature, art, music, and philosophy, creative spectrums which from the beginning of civilization have stimulated critical thinking, tolerance, human sympathy, creativity, and aesthetic enjoyment. Such study helps each man to see himself in a far brighter light and to understand himself with far better insight. In his exposure to humanistic learning, the student should therefore achieve a fuller understanding of the nature and potential of his role as a human being. If he understands this, he can better know and better respond to the weaknesses and strengths, to the basic humanity, of his fellow men.

CREATIVE ARTS

The chief advantage that the Creative Arts Department affords the individual is the opportunity for direct participation. Not only are the traditions and formulae of the past acquired, but a student also has the opportunity for an immediate participation in the present through his creative performance in the classroom, stage, and gallery. Music, Drama, and the Visual Arts heighten the possibilities of expression through the potentials of the chosen media by instruction, practice, and competition with himself and his peers. Hopefully this will equip the student to more accurately evaluate his own interest and competence in the craft and to help determine his future participation in the creative arts.

COURSE DESCRIPTIONS

Art 195 Basic Design 2 class hrs/wk 2 credits
A general introduction to design through study of the basic art principles with emphasis on developing sound judgment, basic skills and individual creative growth.

Art 196 Basic Design 2 class hrs/wk 2 credits
Continuation of study of design with emphasis on relationships between 2 and 3 dimensional space; further development of basic skills, individual growth and ability to analyze design problems.
Prerequisite: Art 195.

Art 197 Basic Design 2 class hrs/wk 2 credits
Continuation of the study of design with emphasis toward the development of the individual designer. Experimentation encouraged.
Prerequisite: Art 196.

Art 201, 202, 203 Survey of Visual Arts
3 class hrs/wk 3 credits
A comprehensive understanding of the visual arts through the study of the elements of art, architecture, sculpture, drawing, print making, painting, industrial design, crafts.

Art 235 Jewelry and Metalsmithing I 4 class hrs/wk 2 credits
Processes and techniques in designing, forming and fabricating non-ferrous metals as preparation for additional work in jewelry and metalsmithing.

Art 236 Jewelry and Metalsmithing II 4 class hrs/wk 2 credits
Design, tools, and techniques of jewelry construction with semi-precious materials, silver and other metals.

Art 237 Jewelry and Metalsmithing III 4 class hrs/wk 2 credits
Skills and techniques involving hand processes of raising and forging, using non-ferrous metals.

Art 255 Ceramics 2 class hrs/wk 2 credits
Introduction to ceramics with emphasis on pottery. Instruction offered in hand construction, throwing, glazing, and firing. Laboratory hours to be arranged. May be repeated. Maximum credit: 6 hours.

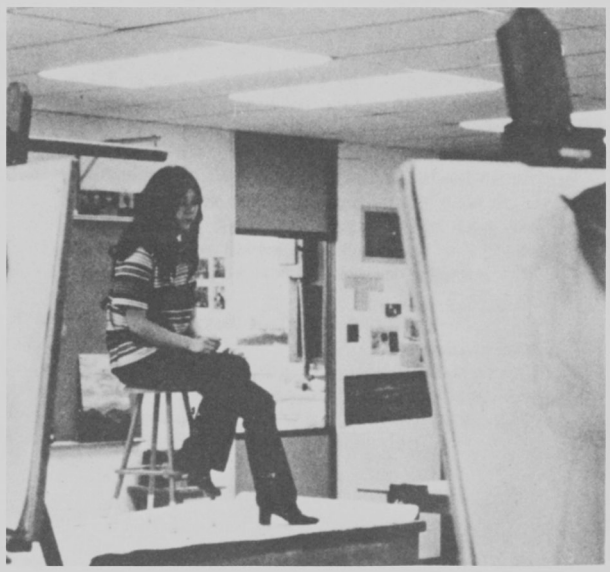
Art 290 Painting 6 class hrs/wk 2 credits
Instruction in the use of oil color and other media on canvas and panels. Fall and winter term is primarily concerned with the development of pictorial composition and self expression. During spring term, copolymer latex emulsions, lacquer, encaustic and other experimental media are used. Painting will be done from still life, human figure and individual imagination. One three hour studio period for each hour of credit.
Maximum credit 9 hours.

Art 291 Drawing 6 class hrs/wk 2 credits
Problems in still life, figure drawing, expressive and landscape drawing. Studies in the use of different materials and techniques. One three-hour studio period for each hour of credit.
Maximum credit 9 hours.

Art 292 Water Color 2 hrs. any term, max. 6 hrs.
The technique and use of water color, with special attention to its characteristics as a painting medium. Emphasis on landscape material.
Prerequisite: Four hours of Art 291 Drawing.

Art 293 Elementary Sculpture 5 class hrs/wk 2 credits
The course provides an understanding of some sculptural techniques and theories explored through the use of clay, plaster, wire, wood, plastics and casting materials and their relation to forms compatible with those materials and techniques.

9.255 Commercial Art 2 class hrs/wk 2 credits
The course is designed to introduce the wide variety of methods and materials used by today's commercial artists, designers and illustrators. Students will be given practical applications of these methods and materials through their art assignments.



Mus 51 Basic Voice 1 credit any term, maximum 3 credits
Classroom instruction for students ineligible for voice instruction at the level of Mus 190. Limit 4 students per term. $30 lab fee.

Mus 190 Performance Studies 1 credit any term, maximum 3 credits
Individual instruction in voice, piano, woodwinds, and brasses.
Prerequisite: Audition demonstrating acceptable level of competency. $30 lab fee.

Mus 290 Performance Studies (Voice) 1 credit any term, maximum 3 credits
Individual instruction in the technical and stylistic aspects of artistic solo performance. $30 lab fee.

Mus 197C Concert Choir 1 credit any term, maximum 3 credits
Performance of Renaissance to Contemporary music.

Mus 197S Swing Choir 1 credit any term, maximum 3 credits
Performance of popular vocal arrangements. Exploration of various swing choir concepts. Audition required for enrollment in Swing Choir.

Mus 297C Concert Choir 1 credit any term, maximum 3 credits
Performance of Renaissance to Contemporary music. Must have satisfactorily completed Mus 197C.

Mus 297S Swing Choir 1 credit any term, maximum 3 credits
Performance of popular vocal arrangements. Exploration of various swing choir concepts. Must satisfactorily complete Mus 197S. Audition required for enrollment in Swing Choir.

Mus 201, 202, 203 Introduction to Music and Its Literature 3 class hrs/wk 3 credits
Cultivation of understanding and intelligent enjoyment of music through a study of its elements, forms, and historical styles.

Mus 111, 112, 113 Music Theory 4 class hrs/wk 4 credits
Work in the elements of music science (melodic, harmonic, and rhythmic) taught through analysis of the styles of Bach, Hayden, Mozart, and other eighteenth and nineteenth century composers.

9.040 Basic Folk Guitar 1 credit
Classroom instruction on the use of the guitar as recreational instrument. Designed for the beginning guitar student.

9.041 Fundamentals of Music 2 credits
A study in reading all types of rhythm and melodic patterns. Course is provided to develop the reading ability of the student.

LANGUAGE ARTS

The area of Language Arts maintains what might be termed a double perspective or standard consisting of the humanistic and the practical. On the humanistic level the department seeks to develop within the student a keener awareness and broader understanding of the world and the kinds of people who live in it. The objective is attempted by exposing the student to an exploration of life in all its aspects in short stories, novels, plays, and poems, all of which reflect the broad panorama of human existence—its problems, its values, its successes, its failures —with everything and anything that can be called human.

On the practical level the departmental program satisfies certain general education requirements for transfer students and raises the performance level of students deficient in writing, reading, and speaking skills. In like manner Language Arts also meets the practical needs of non-transfer students involved in various college programs having a short range, definitely prescribed goal.

COURSE DESCRIPTIONS

WR 111, 112, 113 English Composition 3 class hrs/wk 3 credits
A study of the elements of English composition intended to develop skill in writing and understanding expository prose. Special attention to correctness of fundamentals, organization and development of a unified theme, principles of logic as they apply to rhetoric, and the research paper. Frequent written themes, and tutorial conferences. Must be taken in sequence.

Eng 101, 102, 103 Survey of English Literature 3 class hrs/wk 3 credits
Study of the principal works of English literature based on readings selected to represent great writers, literary forms, and significant currents of thought. Provides both an introduction to literature and a background that is useful in the study of other literature and other fields of cultural history. (101) Beowulf through Shakespeare; (102) Milton through Byron, Keats, and Shelley; (103) Tennyson to the present. Need not be taken in sequence.

Eng 104, 105, 106 Introduction to Literature 3 class hrs/wk 3 credits
Study of literature and the nature of literary experience through the reading of great works of prose and poetry, drawn from English, American and other literature. Works representing the principal literary types are read in their entirety when possible, with emphasis on such elements as structure, style, characterization, imagery and symbolism. Need not be taken in sequence. (104) Short Story, (105) Drama, (106) Poetry.

Eng 107, 108, 109 World Literature 3 class hrs/wk 2 credits
A sequence to acquaint the student with outstanding works of ancient, medieval, Renaissance, and modern literature that have a permanent and wide appeal outside his own country. (107) Greece, Rome, and the early Middle Ages; (108) The Middle Ages and the Renaissance to the 18th Century; (109) The 18th Century to the present.

NEW CAMPUS MAP

COLLEGE CENTER
- English and Journalism Classrooms
- Bookstore
- Student Government
- Food Preparation
- Dining
- Public Reception
- President
- Administrative Assistant
- Board Room
- Business Offices
- Deans and Directors
- Admissions
- Counseling
- Placement

LEARNING RESOURCE CENTER
- Faculty Offices
- Library Services
- Audio-Visual
- Reading Lab
- Listening Lab

OCCUPATIONAL SERVICES
- Faculty Offices
- Social Sciences
- Associate Degree Nursing
- Dental Assistant
- Nursing Assistant

INDUSTRIAL
- Automotive Technology
- Auto Body
- Welding

SCIENCE — TECHNOLOGY
- Faculty Offices
- Mathematics
- Chemistry
- Physics
- Geology
- Biology
- Drafting
- Environmental Technology
- Agriculture
- Metallurgical

HUMANITIES
- Faculty Offices
- General Classrooms
- Arts and Crafts
- Music

BUSINESS EDUCATION
- Faculty Offices
- Data Processing
- Typing
- Shorthand and Office Procedure
- Accounting
- Foreign Language

FORUM (Large Group Instruction)
- Lecture @ 300
- 2 Lecture @ 90 ea
- 4 Seminar Rooms

SERVICE CENTER
- Boiler Room
- Buildings & Ground Administration
- Warehousing & Receiving
- Mail Service
- Maintenance
- Heating and Cooling Service

INTERIM CAMPUS

- A — Classroom Complex
- B — Environmental Technology
- D — Business Education and Home Economics
- E — College Center: Student activities center and Student Center through March 1973
- F — Administration: Administrative, Business and Faculty Offices through May 1973
- G — Registration: ~~Registrar~~, counseling financial aids, and book store through March 1973
- LRC - Library and media center through March 1973

KEY

- Buildings to be completed August 1972
- Buildings to be completed March 1973
- Balcony
- Buildings of the Interim Campus

OFF-CAMPUS LOCATIONS

EAST LINN CENTER — Adult education center located east of Lebanon Senior High School

BENTON CENTER — Adult education center located south of Corvallis Senior High School

LINN-BENTON COMMUNITY COLLEGE

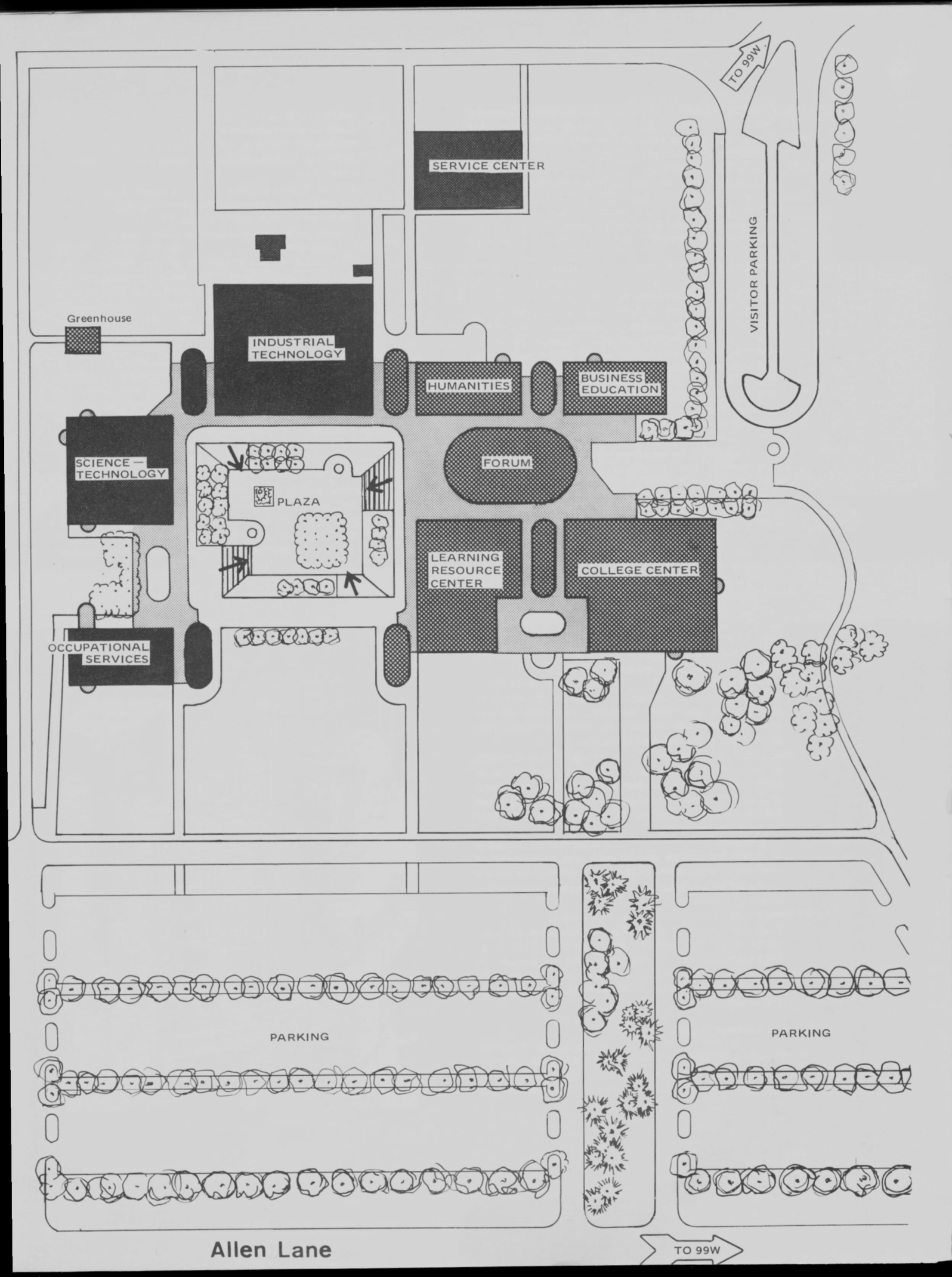
PARKING

A B D

LRC G F E

PARKING

Allen Lane


TO 99W
SERVICE CENTER
VISITOR PARKING
Greenhouse
INDUSTRIAL TECHNOLOGY
HUMANITIES
BUSINESS EDUCATION
SCIENCE — TECHNOLOGY
FORUM
PLAZA
LEARNING RESOURCE CENTER
COLLEGE CENTER
OCCUPATIONAL SERVICES
PARKING
PARKING
Allen Lane
TO 99W

Eng 115 Effective Reading 3 class hrs/wk 2 credits
For the average reader who wishes to improve his study skills and increase his reading efficiency (speed, comprehension, and vocabulary).

Eng 201, 202, 203 Shakespeare 3 class hrs/wk 3 credits
A chronological reading of the important plays — comedies, tragedies, and histories — with emphasis upon Shakespeare as a dramatist and poet. The background of the Elizabethan period — its dramatic tradition, its theater, and its culture — is also emphasized.

Eng 253, 254, 255 Survey of American Literature 3 class hrs/wk 3 credits
A study in the development of the literature of the United States from its beginning to the present day through intensive reading of significant authors representing major literary periods. Provides an understanding and appreciation of American culture as expressed in literature. (253) Puritanism through the Civil War; (254) Transcendentalism to the beginning of realism; (255) Realism and Naturalism to the present. Need not be taken in sequence.

WR 241, 242, 243 Introduction to Imaginative Writing 3 class hrs/wk 3 credits
An introductory sequence for students seriously interested in the techniques of creative writing and a critical appreciation of the art of fiction, drama, and poetry. Each term will include a general consideration of style and criticism of the genres taught.

RL 50, 51, 52 First-Year French 5 class hrs/wk 4 credits
An introduction to French, stressing listening, speaking, reading, and writing. Exercises in elementary grammar and composition A minimum of one hour language laboratory practice is required in addition to scheduled lectures.

SP 111 Fundamentals of Speech 3 class hrs/wk 3 credits
Original speeches, analysis, and synthesis of material with emphasis on organization; outlining, articulation, and group and individual practice to improve the student's poise in the communication act.

SP 112 Fundamentals of Speech 3 class hrs/wk 3 credits
A continuation of Speech 111 with greater depth in organization and clear thinking, providing an opportunity for the student to study, prepare, and present the many types of speeches.

SP 113 Fundamentals of Speech 3 class hrs/wk 3 credits
A continuation of Speech 112 providing practice in persuasive speaking, further work in panel discussion and parlimentary procedure. The course is designed for all students regardless of speech objectives. Must be taken in sequence.

SP 229 Interpretation 2 class hrs/wk 2 credits
A beginning course dealing with the understanding and oral interpretation of prose and poetry. Emphasis is placed on analysis for meaning rather than technique of expression.

SP 250 Speech and Theater Workshop 1-3 credits
Workshop credit is given for participation in productions in the quarter when taken. This is a laboratory course for students who participate in productions. The student would be required to work in and for productions in whatever capacity assigned. Maximum 6 credits.

1.101, 1.104 Communications Skills I, II 3 class hrs/wk 3 credits
Designed to improve the student's ability to employ the four basic communication skills; reading, speaking, writing, and listening. Emphasis is placed on the written and oral forms of communications as they apply to the professional and technical world. Stresses vocabulary building, group discussion in business and technical communication. Need not be taken in sequence.

1.112 Technical Report Writing 3 class hrs/wk 3 credits
Principles of composition, gathering data, and basic forms of writing reports are covered.
Prerequisite: Communication Skills I and II.

1.610 Public Speaking 3 class hrs/wk 3 credits
The study of the principles of oral communication and their application. The course stresses the analysis and organization of material, the evaluation of the audience and speaker's purpose. Practice through regular assignments related to student's interest and experience.

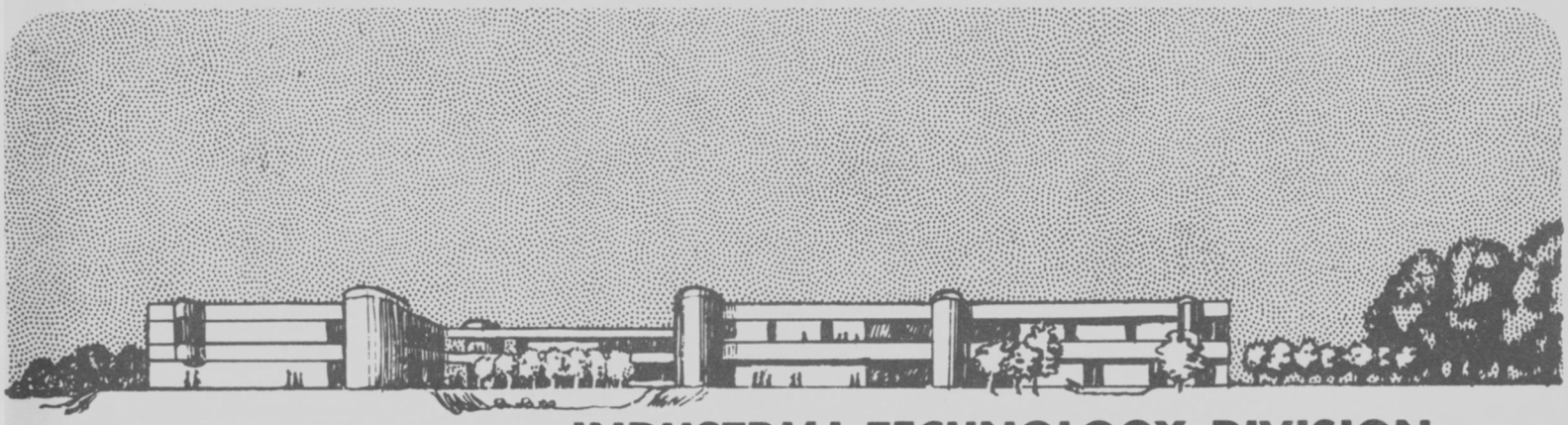
0.655 Basic English 3 class hrs/wk 3 credits
A review of English fundamentals designed for the student who is deficient in the principles of standard English grammar, sentence structure, and usage. Frequent practice in basic writing techniques provided.

0.656 Developmental Reading 3 class hrs/wk 3 credits
For students who have become conscious of reading difficulties which interfere wtih effective study and who are actively interested in correcting them.

Phl. 201 Problems of Philosophy 3 class hrs/wk 3 credits
An introduction to the study of some of the persistent problems of philosophy.

Phl. 202 Elementary Ethics 3 class hrs/wk 3 credits
An introduction to the philosophical study of morality, e.g., right and wrong, free will and determinism, morals and society, etc.

Phl. 203 Elementary Logic 3 class hrs/wk 3 credits
An introduction to the study of reasoning. How to recognize, analyze, criticize, and construct the main types of argument and proof.



INDUSTRIAL TECHNOLOGY DIVISION

INDUSTRIAL TECHNOLOGY DIVISION

CHAIRMAN: James H. Suddreth.
FACULTY: John Alvin, John Bell, Ray Borrall, David Carter, Hubert Fleskes, Dale Herren, L. Carl Love, David Miller, Keith Pond, James M. Reynolds, Ed Stewart, Larry Thornton.

Technological and economical changes in recent years have brought many changes: the manufacturing industry has deleted, updated or created new production techniques; the federal, state, and local governments and industries are moving to control environmental problems created by increased population, production and resource depletion. The automotive industry has enjoyed rapid growth due to economy of repair versus replacement. All of these changes require increased and new skill levels.

Courses offered within this division are designed to prepare individuals for many and varied job opportunities available in our rapidly growing industrial and governmental complex.

The Industrial Technology Division offers the following types of courses and programs to meet a variety of student needs:

1. A two year program in Auto Mechanics leading to an Associate in Science Degree.
2. A two year program in Drafting Technology leading to an Associate in Science Degree.
3. A two year program in Environmental Technology leading to an Associate in Science Degree.
4. A two year program in Machine Technology leading to an Associate in Science Degree.
5. A two year program in Metallurgical Technology leading to an Associate in Science Degree.
6. A two year program in Wastewater Technology leading to an Associate in Science Degree.
7. A one year program in Auto Body Repair leading to a Certificate of Completion.
8. A one year program in Wastewater Treatment Plant Operation leading to a Certificate of Completion.
9. A one year program in Welding leading to a Certificate of Completion.
10. Courses to fit the personal or vocational needs of part time students in day or evening programs.
11. Varied industrial and technical courses to meet the needs of specific apprenticeship programs.

AUTO BODY REPAIR

Training in the Auto Body Repair Program offers an opportunity to gain the skills and knowledge necessary for entry-level employment in all basic phases of auto collision repair, reconditioning and refinishing. Experience is gained on estimating repair costs of components related to this industry.

Both a Certificate and Associate in Science program are available. Students seeking an Associate in Science Degree must meet college requirements for the degree. The Certificate is issued upon satisfactory completion of the Freshman year.

FRESHMAN YEAR

1.101	Communication Skills I	3
1.104	Communication Skills II	3
3.397	Auto Metal Work I	3
3.511	Auto Body Repair I	10
3.512	Auto Body Repair II	10
3.513	Auto Body Repair III	10
3.520	Estimating & Shop Management I	3
3.524	Glass, Trim & Upholstery	3
4.151	Welding I	3
4.152	Welding II	3
HE 250	Personal Health	2
PE 180/190	Physical Education	1

SUGGESTED ELECTIVES

1.500	Employer-Employee Relations	3
3.425	Employment Search Techniques	1
3.308	Fundamentals of Auto Electricity	3
4.108	Industrial Safety	2
4.145	Industrial Math	4

SOPHOMORE YEAR

3.514	Auto Body Repair IV	10
3.515	Auto Body Repair V	10
3.516	Auto Body Repair VI	10
3.517	Frame Straightening and Alignment	3
3.519	Auto Metal Work II	3
3.520	Estimating & Shop Management II	3
3.528	Insurance Claims & Adjusting Techniques	3
4.145	Industrial Math	4
EC 201	Principles of Economics	3
PE 180/190	Physical Education	1
PE 252	First Aid	3

SUGGESTED ELECTIVES

1.112	Technical Report Writing	3
2.100	Principles of Salesmanship	3
2.332	Automotive Service Management	2
2.515	Business Mathematics	3
2.518	Business Law	3
2.548	Business English	3

COURSE DESCRIPTIONS

3.397 Auto Metalwork I 7 class hrs/wk 3 credits
Instruction in atomic and metallurgical structures of mild sheet steel, elastic and plastic deformation, lacking of structure in bent areas, undirected release and controlled directive. Procedures for pulling out areas of impact, shrinking and restressing metal areas.

3.511 Auto Body Repair I 20 class hrs/wk 10 cr.
This course provides instruction concerning auto body and chassis construction, procedures of metal working, assembly and disassembly of components, alignment practices, preparation of vehicle surfaces, use of solder and plastic materials, application of primer and spray painting surface finishes.

3.512 Auto Body Repair II 20 class hrs/wk 10 cr.
Introduction to correct shop procedure, cleanliness, care, use and safety of tools and equipment. Types and use of sandpaper and grinding discs, operation and maintenance of paint guns, masking, priming, sealing and panel painting.

3.513 Auto Body Repair III 20 class hrs/wk 10 cr.
Minor collision damage repair, alignment of doors, fenders, hood and trunk lids. Forming curvature of metal, repairing holes in panels, sectioning and welding torn and damaged areas. Filing, grinding, solder and plastic filling, sanding, priming and painting.

3.514 Auto Body Repair IV 20 class hrs/wk 10 cr.
Checking frame and component parts. Straightening frame and unitized body rail damage, replacing necessary members and alignment of sheet metal. Introduction to door and panel replacement including sectioning, sanding, priming and painting.

3.515 Auto Body Repair V 20 class hrs/wk 10 cr.
Unitized body repair and major section replacement. Body structure alignment, panel replacement, custom styling and fabrication. Sanding, priming, painting, reverse blending and glamour-color application.

3.516 Auto Body Repair VI 20 class hrs/wk 10 cr.
Major collision rebuilding, vehicle structure fabrication, major section replacement, detailing final repairs and complete refinishing. Employer-employee relations, employment search techniques and final preparation for occupational employment.

3.517 Frame Straightening & Alignment
5 class hrs/wk 3 credits
Principles of conventional and unitized frame member construction and alignment. Instruction in straightening frame damage, replacing necessary members, tramming, heating, and methods of damage correction. Principles of steering geometry and front system alignment.

3.519 Auto Metalwork II 7 class hrs/wk 3 credits
Instruction in pivot paints of sheet metal corrections, damage correction planning, displaced metal, simple bends, rolled buckles, hinge buckles, work-hardened ridges, stretched and upset metal. Principles of heat corrections to metal, filing, picking and metal finishing.

3.520 Estimating & Shop Management I 5 class hrs/wk 3 credits
Principles of estimating all collision damage, appearance reconditioning and refinishing. Instruction in parts and materials purchasing, retail labor rate, flat rate, time and material jobs and judgment items. Agreed Prices and guaranteed bids are contrasted.

3.521 Estimating & Shop Management II 5 class hrs/wk 3 cr
A continuation of Estimating and Shop Management I to provide additional theory and skill requirements in this field. Instruction is given in customer relations, cost accounting and analysis and employee payment plans.

3.524 Glass, Trim & Upholstery 5 class hrs/wk 3 credits
Instruction in replacement of glass, mouldings, hardware, headlinings and interior trim. Principles of glass cutting, grinding and polishing. Door lock, power seat, window regulator repairs and adjustments as well as diagnosis and correction of water and dust leaks.

3.528 Insurance Claims & Adjusting Techniques
5 class hrs/wk 3 credits
Principles of insurance claim handling techniques, policies coverages and types of loss. Instruction in types of payment forms, loss reports, affidavits, witness statements, fire losses, theft losses, subrogation, mediation and arbitration is given and practiced. Adjustor-Shop manager relations are clarified.

AUTOMOTIVE TECHNOLOGY

The curriculum set forth by the Automotive Technology, Department is designed to develop the knowledge and skills necessary to enter the Automotive Industry as an Automotive Technician. It provides the graduate student with the ability to functionally perform mechanical work on any portion of the domestic automobile within the realm of the auto mechanics trade.

The Automotive Technology Department has two programs, the Certificate and Associate of Science Degree programs. The Certificate program provides the student with qualifications in one or more specific areas related to the Auto Mechanics Trade.

The Associate of Science Degree program provides the student with qualifications in all areas of auto mechanics as well as all academic qualifications that correspond directly to being a well versed and comprehensive technician with the ability to relate to new concepts and design changes within the Automotive Industry.

Automotive Mechanics offers broad basic instruction and practice in fundamental service and repair practices and procedures. This training provides the knowledge, skills, habits and attitudes needed for employment at the job entry level in the atuomotive service and repair field. An Associate in Science Degree will be awarded to those who successfully complete the two year program.

FRESHMAN YEAR

3.308	Fundamentals of Auto Electricity	3
3.324	Tune-up and Diagnosis	3
3.334	Internal Combustion Engines	6
3.335	Automotive Electricity	6
3.350	Selling Principles and Techniques	3
3.370	Automotive Brakes	3
4.100	Blueprint Reading & Sketching	2
4.145-6	Industrial Math I, II	8
4.151-2	Welding I & II	6
3.360	Fuels and Carburetion**	3
4.130	Machine Processes	3
4.300	Practical Physics I	4
4.302	Practical Physics II	4
PE 190	Physical Education	1

**Prerequisite to Tune-up and Diagnosis 3.324.

SOPHOMORE YEAR

1.101	Communication Skills I	3
1.104	Communication Skills II	3
1.606	Introduction to Psychology	3
1.500	Employer-Employee Relations	3
3.278	Transmissions I	3
3.280	Transmissions II*	3
3.290	Chassis I	3
3.292	Chassis II	3
3.329	Auto Repair Practices I**	3
3.331	Auto Repair Practices II**	3
3.332	Auto Service Management	2
3.360	Auto Machine Shop*	3
3.375	Heat Exchange & Air Control*	3
HE 250	Personal Health	2
	Elective	
PE 190	Physical Education as Required	1

*Second year or trade oriented students only.
**Taken in sequence upon completion of all other mechanic's courses.

COURSE DESCRIPTIONS

3.278 Transmissions I 6 class hrs/wk 3 credits
The study of the principles of operation and maintenance of the manually operated transmissions. Detailed inspections and adjustments are conducted on clutches, pressure plates, three-speed, four-speed and five-speed transmissions.

3.280 Transmissions II 6 class hrs/wk 3 credits
A study of the operating principles and repair-procedures of automatic transmissions, torque converters and fluid couplings. Special emphasis is directed toward developing the ability to swiftly and accurately analyze the performance of automatic transmissions.

3.290 Chassis I 6 class hrs/wk 3 credits
A study of the complete system that composes the automotive power train. Emphasis is placed upon the theory, the application and the servicing of

differential units, universal joints, drive lines, transfer cases, power take-offs.

3.292 Chassis II 6 class hrs/wk 3 credits
Fundamental principles of automotive suspension systems are studied, with emphasis upon front end alignment, wheel balancing, steering systems and frames.

3.295 Hydraulics and Pneumatics 6 class hrs/wk 3 credits
A course to familiarize the industrial student with fundamental principles of hydraulic and pneumatic systems. A study is made of the component parts of specific systems commonly used in automobiles and machinery.

3.308 Fundamentals of Automotive Electricity
3 class hrs/wk 3 credits
A lecture-demonstration course intended to acquaint the student with the basic fundamental theories and principles of automotive electricity.

3.324 Tune-Up and Diagnosis 6 class hrs/wk 3 credits
A problem-solving course of the lecture-demonstration-lab-performance type in which the student works on a live engine. He will call on his learning and skills acquired in previous courses to solve various engine malfunctions and then to bring that engine to optimum operating efficiency.

3.329 Automotive Repair Practices I 7 class hrs/wk 3 credits
A laboratory course in which the student can develop additional abilities and understanding through diagnosis and repair of automotive equipment. It will include overhaul, maintenance procedures, and practices to simulate the work of a line mechanic. Live jobs will be selected to provide the student with a wide scope of experience.

3.331 Automotive Repair Practices II 7 class hrs/wk 3 credits
A continuation of Automotive Repair Practices I.

3.332 Automotive Service Management
2 class hrs/wk 2 credits
This course outlines the duties and responsiblities of the service manager. The students study methods of organizing service personnel, shop facilities, and an introduction to shop layout and buildings. Appreciation of good relationships with customers, labor and management groups, and individuals is emphasized.

3.334 Internal Combustion Engines 12 class hrs/wk 6 credits
A lecture-lab course of instruction in the various types of internal combustion engines and their component parts, accessories, service and over-haul techniques. The fundamentals and principles of engine reconditioning and repair are studied and performed as the student returns the engine to manufacturer's specification.

3.335 Automotive Electricity 12 class hrs/wk 6 credits
Basic instruction and practice in the theory and servicing of automotive electrical equipment and systems. Advanced instruction in automotive electrical systems under conditions similar to those experienced by the line mechanic. Testing, adjusting and servicing of all electrical systems is carried out while the equipment functions as an integral part of the automobile.

3.350 Selling Principles and Techniques
5 class hrs/wk 3 credits
A course primarily concerning the attitudes and philosophy of automotive employees who must frequently meet and deal with the public. Particular attention is given to the attributes of successful service station operation which will include product and service knowledge, courtesy, cleanliness, merchandising, planning and organization.

3.360 Automotive Machine Shop 6 class hrs/wk 3 credits
A specialty course devoted to the successful organization and operation of the automotive machine shop including boring, milling, grinding, re-sizing, honing, and other simple operations common to the automotive machinist's work.

3.364 Fuels and Carburetion 5 class hrs/wk 3 credits
An introductory course dealing with the principles and terminology of automotive fuel and carburetion systems. Students will become involved with the techniques and overhaul procedures as they apply to carburetors, fuel pumps, fuel tanks, fuel gauges and fuel lines and fittings.

3.370 Automotive Brakes 6 class hrs/wk 3 credits
Fundamental principles of the functioning and repair procedures of automotive braking systems. Included are mechanical, air, electric and combination braking systems with emphasis upon servicing for optimum performance according to established safety standards.

3.375 Heat Exchange and Air Control 6 class hrs/wk 3 credits
A study of the problems of temperature control both inside the engine compartment and inside the automobile. Included are diagnosis, adjustment and repair of radiators, heaters, air conditioning units, and temperature control accessories.

4.130 Machine Processes 5 class hrs/wk 3 credits
A basic machine tool operations course, Introducing the student to the principles involved in the operation of the basic machine tools, engine lathe, shaper, drill press, grinder and milling machine.

DRAFTING TECHNOLOGY

The two year Drafting Technology program is designed to provide a student with experiences that will allow him to learn the basic attitudes, skills, knowledge, and understanding necessary to successfully enter drafing occupations.

The first year will provide a sound general background with the second year providing a broad coverage of subject selection, but still permitting the student to work toward such specialities as architectural, mechanical, product design, technical illustration, and electronic drafting.

FRESHMAN YEAR

1.101	Communications Skills I	3
1.104	Communications Skills II	3
4.109	Technical Sketching	1
4.110	Drafting I	3
4.111	Drafting II	3
4.112	Drafting III	3
4.127	Industrial Practices	3
4.300	Practical Physics I	4
4.302	Practical Physics II	4
6.337	Slide Rule	1
4.145	Industrial Math I	3
4.146	Industrial Math II	3
4.147	Industrial Math III	3
4.148	Practical Descriptive Geometry	2
9.053	Drafting Procedures	2
3.494	Construction Methods & Materials	3
PE 190	Physical Education	1

SOPHOMORE YEAR

1.124	American Institutions	3
1.500	Employment Relations	3
3.425	Employment Search Techniques	1
3.490	Applied Mechanics	3
4.114	Architectural Drafting	4
4.115	Presentation Drawing	2
4.119	Machine Drafting	4
4.121	Electronics Drafting	2
4.123	Technical Illustration	3
4.125	Project Drafting	3
4.126	Mechanical Design Principles	2
4.498	Product Design	2
HE 250	Personal Health	2
	Electives	3

COURSE DESCRIPTIONS

3.429 Blueprint Reading for the Construction Trades
2 class hrs/wk 2 credits
A basic course in architectural blueprint reading. Emphasis will be placed on the interpretation of blueprints of residential and light commercial structures.

4.100 Blueprint Reading and Sketching
4 class hrs/wk 2 credits
Emphasis in this basic course will be placed on the interpretation of scale drawings, symbols, and the preparation of "on-the-spot" explanation sketches.

4.101 Drafting and Blueprint I 4 class hrs/wk 2 credits
An introductory course in the use of drafting equipment, tools, and materials. Geometric construction, lettering, orthographic projection, isometric drawing, and blueprint reading will be among the subjects studied.

4.105 Drafting and Blueprint II 4 class hrs/wk 2 credits
The emphasis in this intermediate drafting course will be placed on dimensioning, sectional and auxiliary views, the development of working drawings, and the interpretation of blueprints.
Prerequisite: Drafting and Blueprint I or equivalent.

4.109 Technical Sketching 3 lab hrs/wk 1 credit
A course in freehand sketching designed to develop skills as they relate to technical and industrial applications.

4.110 Drafting I 7 class hrs/wk 3 credits
A fundamental course in drafting designed to provide the student with a basic understanding of drafting techniques. Emphasis will be placed on the application of drafting instruments, geometric construction, lettering, orthographic projection, sections, and pictorial drawings.

4.111 Drafting II 7 class hrs/wk 3 credits
An intermediate course designed to advance the student's application of fundamental drafting techniques. Emphasis will be placed on dimensioning, tolerances, fasteners, auxiliary views, working drawings, intersections, and developments.
Prerequisite: Drafting I or equivalent.

4.112 Drafting III 7 class hrs/wk 3 credits
An advanced course requiring the application of previously learned drafting techniques. This drafting course is designed to prepare students to enter courses in mechanical, architectural, electronics drafting, and technical illustration.

4.114 Architectural Drafting 8 class hrs/wk 4 credits
An introductory course in architectural details. Emphasis will be placed on architectural lettering, symbols, and detail drawings. A wide variety of architectural reference materials will be utilized.

4.115 Presentation Drawing 4 class hrs/wk 2 credits
A course involving the drawing of interior and exterior views of architectural subjects for display purposes. One and two-point perspective, basic rendering, and presentation techniques will be studied. Various media will be employed.

4.116 Architectural Planning 8 class hrs/wk 4 credits
An introductory course in residential and light commercial planning. A study will be made of architectural styles, orientation, site planning, kitchen planning, elevations, symbols, and specifications.
Prerequisite: Drafting I or equivalent.

4.119 Machine Drafting 8 class hrs/wk 4 credits
An advanced course in the preparation of working drawings as related to shop processes. Emphasis within the course will be placed on precision dimensioning, tolerances, drafting standards, symbolic notations, speed and accuracy, as required by industry.
Prerequisite: Drafting III or equivalent.

4.121 Electronics Drafting 4 class hrs/wk 2 credits
An introductory course employing the drafting techniques and methods used in the electronics industry. Emphasis will be placed on the drawing and interpretation of electronics symbols, wiring diagrams, and schematics.
Prerequisite: Drafting I or equivlanet.

4.123 Technical Illustration 7 class hrs/wk 3 credits
A course to introduce students to the techniques and skills involved in the graphic production of illustrations for brochures and catalogs, as well as service and training manuals. The production of detailed isometric drawings, exploded assembly drawings, pencil and ink shading, and color rendering will be covered in this course.

4.125 Project Drafting 7 class hrs/wk 3 credits
An advanced course offering the opportunity to study, in depth, in an area of interest. The student will select, or be assigned, problems which will require analysis, mathematical calculations, and the use of reference materials. Concurrent related employment may be substituted.

4.126 Mechanical Design Principles 2 class hrs/wk 2 credits
A study of mechanical design as it relates to the draftsman. Emphasis will be placed on design considerations, analysis, procedures, calculations, processes, problem solving and evaluation.
Prerequisite: Industrial Math II.

4.127 Industrial Practices 5 class hrs/wk 3 credits
A general analysis of the technical procedures and processes used in industry. Manufacturing terminology, methods, materials, and machine applications will be studied as they relate to drafting. Visitations to local industries will be correlated with class assignments.

4.148 Practical Descriptive Geometry 4 class hrs/wk 2 credits
A practical course in descriptive geometry as needed by the drafting technician. The course will include theory of auxiliary views, true lengths of lines, true size and shape of angles—planes, and point of intersection development from point-line plane through the use of revolution.
Prerequisite: Drafting II and Industrial Math II or equivalent.

9.053 Drafting Procedures 2 class hrs/wk 2 credits
An in-depth study of the total drafting profession. Course activity will be within the areas of the Draftsman-Engineer-Architects roles in a technological society, study habits and education for careers of change, spoken and written communication techniques, and the engineering-architectural design process. Field trips and visits by architects, engineers and technicians will be included.

3.490 Applied Mechanics 3 class hrs/wk 3 credits
A course dealing with bodies in equilibrium under action by forces to develop an understanding of structural materials as subjected to conditions of tensil, compressive, and shearing forces. The magnitude and distribution of stresses are studied in materials common to the construction and manufacturing fields.
Prerequisite: Industrial Math III and Practical Physics.

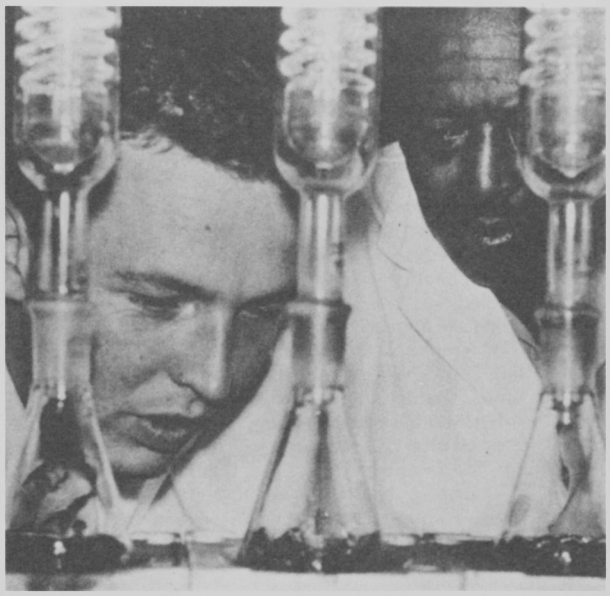
3.494 Construction Methods and Materials 3 class hrs/wk 3 credits
A study of the fundamental aspects of materials used in modern construction. The course is designed to familiarize the student with terminology, construction details, tools, equipment, and processes as related to the manufacturing and construction industries. A wide scope of methods and procedures will be studied utilizing a variety of reference materials.

3.498 Product Design 2 class hrs/wk 2 credits
A course relating the humanistic elements of design to a product or a concept. The course involvement will be within the areas of designing for effective human use, designing environments that are stable and efficient for human occupancy, and designing for aesthetic human appreciation.

ENVIRONMENTAL TECHNOLOGY

The Environmental Technology curriculum is designed to develop graduates who will be able to successfully enter the job market as laboratory technicians or field inspectors in the Environmental or Quality Control field. The students will learn and master the techniques involved in wet chemistry and instrumental (G.C., A.A., IR, UV) analysis of air and water. The students will also learn principles of treatment of air, water and solid waste, and make application of these skills to day - to - day environmental problems in the valley community. Students completing the two year curriculum will be granted an Associate of Science Degree and will be in a strong position to enter a rapidly growing job market.

FRESHMAN YEAR		
1.101, 1.104	Communication Skills I and II	6
1.110	Elements of Algebra	4
1.112	Technical Report Writing	3
1.606	Introduction to Psychology & Human Relations	3
6.101	Introduction to Environmental Technology I	3
6.102	Introduction to Environmental Technology II	3
6.120	Principles of Ecology	3
6.200	Solid Waste Disposal	3
6.205	Seminar	2
Bio. 101	General Biology	4
Chem. 102	General Chemistry	3
Mth. 100	College Algebra	4
HE 250	Personal Health	2
PE 190	Physical Education	1
SOPHOMORE		
6.115	Microbiology	4
6.216	Principles of Treatment for Air, Water & Solid Waste I	4
6.217	Principles of Treatment for Air, Water & Solid Waste II	4
6.218	Principles of Treatment for Air, Water & Solid Waste III	4
6.222	Air and Water Analysis I	4
6.227	Air and Water Analysis II	4
6.228	Air and Water Analysis III	4
6.235	Practical Physics and Hydraulics	4
6.240	Air Pollution Control I	2
6.241	Air Pollution Control II	2
6.242	Air Pollution Control III	2
6.289	Environmental Technology Problems I	4
6.290	Environmental Technology Problems II	4



COURSE DESCRIPTIONS

6.101 Introduction to Environmental Technology I
3 class hrs/wk 3 credits
An introduction course which surveys environmental problems. Topics include water, sewage, solid waste management, swimming pool sanitation, vector borne diseases and environmental control.

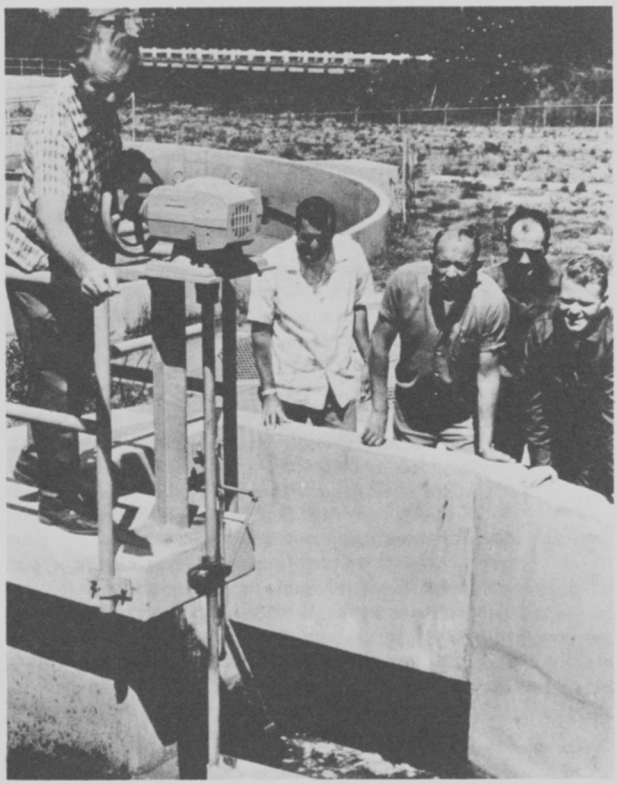
6.102 Introduction to Environmental Technology II
3 class hrs/wk 3 credits
Continuation of 6.101. Emphasis on the following topics: Industrial health and safety, radiological health, watershed sanitation, housing, food and mill production, environmental factors and chronic disease.

6.120 Principles of Ecology 3 class hrs/wk 3 credits
A study of the basic fundamentals of ecology and some inter-relationships of man and his environment.

6.200 Solid Wastes Disposal 3 class hrs/wk 3 credits
A study of solid wastes disposal methods and processes in the Mid-Willamette area. Specific emphasis is placed on survey techniques and evaluation of disposal methods.

6.205 Seminar 2 class hrs/wk 2 credits
Selected readings from current journals and professional papers in the environmental field.

6.216 Principles of Treatment for Air, Water & Solid Waste I
6 class hrs/wk 4 credits
A study of the theoretical and practical aspects of water and wastewater treatment units and their relationship to air and solid waste pollutions.



6.217 Principles of Treatment for Air, Water & Solid Waste II
6 class hrs/wk 4 credits
A study of the theoretical and practical aspects of air pollution control devices and their relationship to water and solid waste pollutions.

6.218 Principles of Treatment for Air, Water & Solid Waste III
6 class hrs/wk 4 credits
A study of the theoretical and practical aspects of solid waste disposal processes and their relationship to air and water pollution.

6.226 Air and Water Analysis I 8 class hrs/wk 4 credits
A systemic study of laboratory procedures as applied to air and water analysis. The course is designed to develop understanding of the theory and laboratory techniques required to perform all analyses to determine the sanitary characteristics of air and water from a particular source.

6.227 Air and Water Analysis II 8 class hrs/wk 4 credits
Continuation of 6.226. This portion is designed to develop understanding of the theory and adequate laboratory techniques needed to evaluate air and water treatment methods and operational practices.

6.228 Air and Water Analysis III 8 class hrs/wk 4 credits
Continuation of 6.226 and 6.227. This portion is designed to develop understanding of the theory and adequate laboratory techniques needed to correlate test results with specific design and/or operational problems of air pollution control devices and wastewater disposal plants in LBCC's immediate area.

6.235 Practical Physics and Hydraulics
5 class hrs/wk 4 credits
A study of the basic concepts of hydrostatics, fluid mechanics, metering devices, pressure control and flow rate controllers, as well as principles of pump operation.

6.240 Air Pollution Control I 2 class hrs/wk 2 credits
A study of the basic fundamentals of atmospheric pollution and control. Studies of the nature of polluting materials include gases, dusts, vapors, and fumes.

6.241 Air Pollution Controll II 2 class hrs/wk 2 credits
Continuation of 6.240. This portion deals with the relation of atmospheric conditions to the dispersal of pollution materials, methods of analysis of poluting materials and methods of control.

6.242 Air Pollution Control III 2 class hrs/wk 2 credits
Continuation of 6.240, 6.241. This portion deals with design and conduct of comprehensive air pollution surveys, advanced concepts and design of modern control methods.

6.289 Environmental Technology Problems I
8 class hrs/wk 4 credits
This course enable the student to use techniques developed in previous classroom and laboratory courses in actual supervised field experience.

6.290 Environmental Technology Problems II
8 class hrs/wk 4 credits
Continuation of 6.289. This portion is designed to develop field techniques needed to handle day-to-day problems encountered in environmental control.

6.115 Microbiology for Environmental Control
6 class hrs/wk 4 credits
A general microbiology survey with special emphasis on sanitation microbiology. The following areas will be covered: history and importance of microbiology; basic morphology and phsyiology of cells; survey of bacteria, their characteristics and importance in the environment; survey of fungi, algae, protozoa, and viruses; techniques of culturing microorganisms; techniques of isolating and identifying microorganisms; and summary of techniques associated with fresh and wastewater microbiology.

GENERAL INDUSTRIAL TECHNOLOGY

3.425 Employment Search Techniques 1 class hr/wk 1 credit
A course designed to aid the student in locating and securing employment. Emphasis will be placed upon personal interviews, writing letters of application, and organizing a personal resume. Local personnel managers will be invited to class sessions to discuss aspects of job applications and to discuss why some applicants fail to get jobs.

3.444 Welding Metallurgy 6 class hrs/wk 4 credits
An introduction to the physical and mechanical properties of weld metal and how the application of soldering, brazing, and fusion processes effect the structural and service requirements of metal joints. Investigations will be made to determine operator responsibility in regards to completing joints in welded metals that are capable of matching or exceeding the strength and reliability of the base metals.

3.462 Industrial Electricity 5 class hrs/wk 3 credits
An introductory course concerned with the principles and applications of electricity in industry. Studies are made of the properties of conductors and insulators, the basic electrical and electronic circuits in testing equipment, principles and maintenance of AC and DC motors and generators, their controls, switching gear, and circuit protection devices.

4.108 Industrial Safety 2 class hrs/wk 2 credits
A survey of the principles of safety in industry including safety codes, personnel considerations, safety practices relating to machine design, materials handlings and safe equipment operation and maintenance. An attempt is made to decrease the number of accidents along with reducing the seriousness when a accident does occur.

4.120 Fundamentals of Specifications 5 class hrs/wk 3 credits
This course is designed to acquaint the student with usage and practice in the preparation and interpretation of manufacturing and fabrication specifications. Practical problems will be assigned to relate classwork to industry.

4.127 Industrial Practices 5 class hrs/wk 3 credits
An analysis of the technical procedures and processes used in industry. Manufacturing and fabrication terminology, methods, materials, and tools will be studied as they relate to major course requirements. Visitations to local industries will be correlated with class assignments.

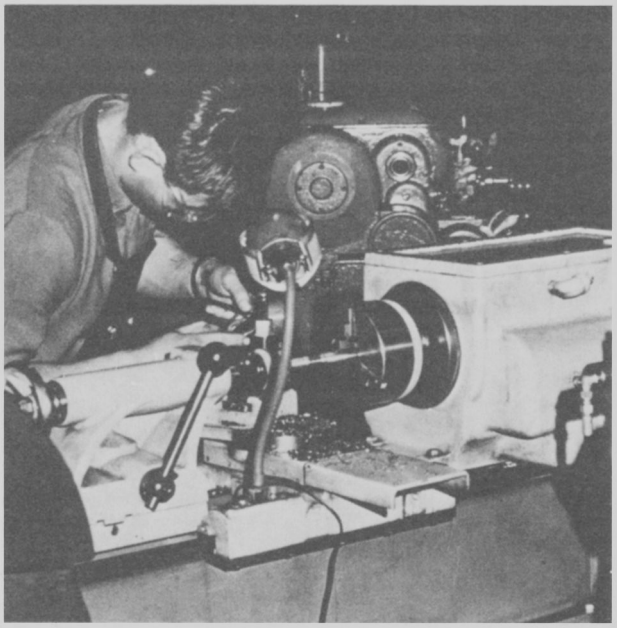
4.130 Machine Processes 5 class hrs/wk 3 credits
A basic machine tool operations course. Introducing the student to the principles involved in the operating of the basic machine tools, engine lathe, shaper, drill press, grinder and milling machine.

MACHINE TECHNOLOGY

Machine tool curriculum is designed to develop skills in a wide variety of machining processes including the operation of engine lathe, milling machine, sensitive drill press, surface grinder, tracer lathe, radial drill press and tool and cutter grinders. The students finishing the first year of the curriculum should be able to enter the job market as a trainee with basic skill in machining processes at their disposal. Students completing the full two year curriculum will be granted an Associate of Science degree and will be in a strong position to enter a rapidly growing job market.

During the 1972-73 year, the full two-year program may not be offered. Current information on the status of this program may be obtained through Admissions and Counseling.

	FRESHMAN YEAR	
3.380-2	Machine Tools I, II, III	30
3.471	Cost Estimating	3
4.100	Blueprint Reading and Sketching	2
4.145-7	Industrial Math I, II, III	12
4.151	Welding I	3
6.293	Introduction to Metallurgy	4
6.337	Slide Rule	1
	SOPHOMORE YEAR	
1.101, 1.104	Communication Skills I, II	6
1.124	American Institutions	3
3.383-5	Machine. Tools IV, V, VI	30
4.302	Practical Physics	4
PE 190	Physical Education	1



3.403 Machine Tools I 20 class hrs/wk 10 credits
A lecture and lab course that provides basic and introductory information to the student interested in the machinist trade and/or related fields. The student becomes familiar with the engine lathe and its applications through concentrated instruction. Other machines of the five basic machining arts are generally discussed and their uses explained. Blueprint reading, simple shop math, and cutting speeds and feeds are explained in sufficient depth to provide safe machine operation at an early part of the course. Films, slides, tape, field trips and demonstrations are all used to provide additional student interest and motivations.

3.404 Machine Tools II 20 class hrs/wk 10 credits
A lecture and lab course that provides basic and introductory information to the student interested in the machinist trade and/or related fields. This course concentrates on the machine arts of shaper, planer and drill presses. Primary emphasis will be placed on relating the lathe single point tooling proficiency on to the shapers and planers. Drill presses, milling machines, and grinders will be utilized to develop a broader range of skills. Related skills in measuring, blueprint reading and shop math will be increased through the variety of assigned projects.

3.405 Machine Tools III 20 class hrs/wk 10 credits
A lecture and lab course that provides basic and introductory information to the student interested in the machinist trade and/or related fields. This course concentrates on the machining arts of milling and grinding. Primary emphasis will be placed on relating single point cutting, machine set-up, tool selection and material removal rate skills to the more complicated milling machines and grinders. Drill presses, lathes, shapers and planers will be used in conjunction with the milling and grinding projects. Shop set-up, part layout, measuring, blueprint reading and shop math skills will be increased through the variety of assigned projects.

3.406 Machine Tools IV 20 class hrs/wk 10 credits
A lecture and lab course that provides advanced training to students generally familiar with the five basic machining arts. Students will review and update previously acquired skills. Special attention is devoted to increasing the depth of knowledge on the lathe. More precision and special set-up work is accomplished on face plates, complex configurations and tracer lathe application. Turning and boring are associated more closely with the supplemental operations. Increased emphasis is placed on industry accepted material removal rates. Roughing and finishing operations are studied in depth. Milling machines, shapers and planers, drill presses and grinders are used extensively in conjunction with lathe projects. Tool and cutter grinding is a part of the project requirements.

3.407 Machine Tools V 20 class hrs/wk 10 credits
A lecture and lab course that provides advanced training to students generally familiar with the five basic machining arts. Students will review and up-date previously acquired skills. Special attention is devoted to increasing the depth of knowledge on the shaper, planer, and drilling machines. Emphasis is placed on precision quality work, complex configurations, special set-ups, industry accepted material removal rates and tool and cutter sharpening. Roughing and finishing operations are studied in depth. Lathes, mills, and grinders are used extensively in conjunction with shaper-planer-drill projects. Related fields of machining such as tool making, machine repair, numerical control and automation are studied to broaden student's scope of knowledge.

3.408 Machine Tools VI 20 class hrs/wk 10 credits
A lecture and lab course that provides advanced training to students generally familiar with the five basic machining arts. Students will receive and update previously acquired skills. Special emphasis is placed on increasing the depth of knowledge of milling machines and grinder operation. Concentrated attention is placed on precision quality work, complex configurations, special shop set-ups, industry accepted material removal rates and proper tool selection. Roughing and finishing operations are studied in depth. Lathes, drills, shapers, and planers are used in conjunction with the milling and grinding projects. Increased attention is devoted to study of the related fields of tool making, equipment repair, numerical control and tool and cutter grinding.

3.471 Cost Estimating 3 class hrs/wk 3 credits
A lecture lab that will deal with the techniques of cost estimating for machine tool trades to include the basic elements of set-up, time run, burden rates, direct labor hours and hourly rates, material costs, tool selection, and production planning.

METALLURGICAL TECHNOLOGY

The Metallurgical program is intended to present information regarding the extraction and purification of metals; the subsequent alloying or combining, treatment, and fabrication of metals; and the examination, analysis, and testing related to quality control and product development.

Metallurgical theory as presented deals with the processing of raw products to metals, internal structure of metals, the influence of microstructure on properties, and the influence of alloying elements as they are conditioned by mechanical working and heat treatment.

Satisfactory completion of the following program will lead to the Associate in Science Degree during the 1972-73 year, only the freshman year will be offered. Some second year metallurgical courses will be offered in the evening program.

FRESHMAN YEAR

1.110	Elements of Algebra	4
1.124	American Institutions	3
3.444	Welding Metallurgy	4
4.101	Drafting & Blueprint I	2
4.151	Welding I	3
4.205 -6	Basic Chemistry	6
4.302, 4.304	Practical Physics	8
4.320	Analytical Chemistry	3
6.276	Physical Metallurgy	4
6.293	Introduction to Metallurgy	4
6.294	Process Metallurgy	4
Mth 100	Intermediate Algebra	4
PE 190	Physical Education	1

SOPHOMORE YEAR

1.101, 1.104	Communication Skills I, II	6
3.425	Employment Search Technique	1
3.462	Industrial Electricity	3
4.108	Industrial Safety	2
4.120	Fundamentals of Specifications	3
4.127	Industrial Practices	3
4.130	Machine Processes	3
4.161-3	Materials Testing I, II, III	6
6.281	Non-Destructive Testing I	3
6.282	Non-Destructive Testing II	3
6.298-9	Metallography I, II	4
9.500	Elements of Supervision	3
HE 250	Personal Health	2
	Technical Electives	3

Suggested Technical Electives:
- Basic Psychology for Supervisors
- Technical Report Writing
- Applied Economics
- Strength of Materials
- Photography
- Vacuum Technology

COURSE DESCRIPTIONS

4.161-3 Materials Testing I, II, III — 4 class hrs/wk 2 credits
Study of the properties of engineering materials. Fundamental aspects of the behavior of engineering materials. Elastic and plastic deformation, fracture, creep, fatigue, impact, temperature effects, and corrosion. Destructive and non-destructive evaluation. Elementary principles of measurements, methodology test equipment, instrumentation, and analysis of data.

6.276 Physical Metallurgy — 6 class hrs/wk 4 credits
Study of the concepts, structures, properties, heat treatment, methods of forming, and evaluation of metals and alloys.
Prerequisite: Intro. to Metallurgy.

6.281 Non-destructive Testing I — 5 class hrs/wk 3 credits
An introductory course in the theory and applied techniques of liquid penetrant, eddy current, and magnetic particle inspection dealing with industrial applications as an integral part of metals fabrication and development along with testing and inspection process in quality control.

6.282 Non-destructive Testing II — 7 class hrs/wk 3 credits
A continuation of Non-destructive Testing I with a major emphasis being placed upon ultrasonic and radiographic methods of testing and inspection.

6.293 Introduction to Metallurgy — 6 class hrs/wk 4 credits
Introduction to crystalline and atomic structure of metals, simple metals and alloys, methods of bonding types of solid solutions, analysis of phase diagrams, heat treatment and hardening mechanisms of metals and the effect of alloying elements.

6.294 Process Metallurgy — 6 class hrs/wk 4 credits
Metallurgical principles are studied including raw materials requirements for metals processing, furnaces and refractories, furnace fuels and combustion, heat flow, energy balances and alloy systems.
Prerequisite: Basic Chemistry or consent of instructor.

6.298-9 Metallography I, II — 4 class hrs/wk 2 credits
The understanding and use of metallurgical equipment including technical concepts of specimen procurement, mounting, polishing, etching, visual examination, sketching of structural characteristics, photomacrography and photomicrography of ferrous and non-ferrous materials.

SPECIAL PROGRAMS

The Industrial & Technical Division has two special programs that meet specific state-wide needs. These programs are funded by Federal and State funds. Since they both have specific admission requirements, any inquiries should be forwarded to the Industrial & Technical Division chairman.

SEWAGE TREATMENT PLANT OPERATORS TRAINING PROGRAM

The objective of the Sewage Treatment Plant Operators training program is to prepare presently disadvantaged, unemployed or seriously underemployed persons for jobs in an environmental area where there is an absence of qualified workers. The program is funded under the Manpower, Development and Training Act.

The activities of the STPO program would include in the forty-four (44) week program all or part of the following: operates sewage treatment plant to control panels flow and processing of sewage, keeps close watch on control panels and opens, shuts and adjusts valves and gates manually or by remote control to regulate flow of sewage. Observes changes in operating conditions and interprets meter gauges and test results to determine various processes. Starts and stops motors, pumps, engines and generators to control various processes of sewage. Maintains logs, records, gauge readings. Gives directions to various employees.

SEWAGE TREATMENT PLANT STATE-WIDE UP-GRADING PROGRAM

Any sewage treatment plant, no matter when it was built, how much it cost, or how well it was designed can only serve its intended function when it is operated at its greatest level of efficiency. To accomplish this, it is evident that we need well trained, knowledgeable, highly skilled personnel as plant operators.

To assist in achieving this goal, Linn-Benton Community College, with the endorsement of the Department of Environmental Quality, is offering a program designed to up-grade the training of sewage treatment plant operators. The program is under a federal training grant, funded by the Environmental Protection Agency, and is open to all personnel currently employed within the state of Oregon at wastewater treatment facilities.

The training program is built around eight modules of instruction offered over a two year period. Each module will be built around a three to five day short course at a central location. Upon leaving the short course, the trainee will carry home audio-visual materials, reading assignments and correspondence work. During the term, after the short course, a consultation visit at the trainee's home plant will be scheduled by the LBCC staff for a period of one or two days. This visit will provide an opportunity for over-the-shoulder instruction, give and take discussions related to the trainees specific work situation and progress evaluation on the carry-home materials. In addition, a one day annual meeting and critique session for all participants will be held at a site removed from all training facilities.

The program is open-ended and a person can take one module of instruction or up to all eight modules, depending upon the individuals needs and desires.

In addition, LBCC will provide the trainees with the opportunity to earn as Assocaite of Science degree in wastewater technology if he satisfactorily completes all eight modules of instruction and an additional 18 credit hours of general education courses. These 18 credit hours could be completed at the Oregon Community college nearest his home.

The major areas of study are as follows: Primary Treatment Processes, Secondary Treatment Processes, Mechanical Aspects of Treatment Plant Operations, Progress Evaluation I, Tertiary Treatment Processes, Laboratory Analysis, Supervisory Training and Business Management, and Progress Evaluation II.

WASTEWATER TECHNOLOGY

The Wastewater Technology curriculum is structured to develop graduates who will qualified for employment as a wastewater treatment plant operator. A firm foundation in the sciences of chemistry, hydraulics and practical physics, technical mathematics; followed by specialized courses in sanitary microbiology and chemistry where the student learns to perform the actual tests used in the control of treatment plant processes. Further courses cover all phases of treatment plant operation, including maintenance, administration, budget preparation, public relations, purchasing and report writing. Hands-on-training is provided during a summer ten week period when the student works full time in a wastewater treatment plant. Students completing the full two year curriculum will be granted an Associate of Science Degree and will be in a strong position to enter a job market in which there is a great shortage of qualified people.

	FRESHMAN YEAR	
1.101	Communication Skills I	3
1.104	Communication Skills II	3
1.110	Elements of Algebra	4
1.112	Technical Report Writing	3
1.606	Introduction to Psychology & Human Relations	3
4.205	Basic Chemistry I	3
4.206	Basic Chemistry II	3
6.101	Introduction to Environmental Technology I	3
6.114	Sanitary Microbiology I	4
6.115	Sanitary Microbiology II	4
6.120	Principles of Ecology	3
6.151	Wastewater Technology I	3
6.152	Wastewater Technology II	3
6.168	In-Plant Practicum I	10
6.173	Sanitary Chemistry I	3
HE 250	Personal Health	2
Mth 100	College Algebra	4
PE 190	Physical Education	1
	SOPHOMORE YEAR	
1.124	American Institutions	3
6.153	Wastewater Technology III	3
6.154	Wastewater Technology IV	3
6.155	Wastewater Technology V	3
6.158	Sanitary Seminar I	1
6.159	Sanitary Seminar II	1
6.161	Wastewater Management I	4
6.162	Wastewater Management II	4
6.165	Wastewater Operations Project	4
6.174	Sanitary Chemistry II	3
6.175	Sanitary Chemistry III	3
6.235	Hydraulics & Practical Physics	4
PE 190	Physical Education	1

COURSE DESCRIPTIONS

6.114 Sanitary Microbiology I — 6 class hrs/wk 4 credits
This course will enable the student to describe the chemical structure of organic macro-molecules, related chemical and enzymatic reactions and the structure of water, to diagram a typical cell, identify cell components, give their function; describe nutrient uptake methods and explain cellular metabolism; describe the influence of temperature, pH, nutrient level and population densities on the growth and behavior of bacteria. In the laboratory, the student will develop competency in the use of the microscope, techniques of media and glassware preparation, transfer, isolation, disinfection and sterilization techniques. Competence in the identification of bacteria through the use of Gram's stain and 1MViC staining techniques will also be developed.

6.115 Sanitary Microbiology II — 6 class hrs/wk 4 credits
This course will enable the student to identify and describe the characteristics of microorganisms associated with wastewater treatment processes, indicators of problems in process operations, describe how microorganisms are used as indicators of water quality and techniques for treating water for microbial contamination. In the laboratory, the student will learn to perform the bacteriological tests associated with wastewater treatment processes and to use the microscope as it is employed in process control in a wastewater treatment plant laboratory.
Prerequisite: Sanitary Microbiology I.

6.151 Wastewater Technology I — 5 class hrs/wk 3 credits
This course will enable the student to name the units and components of the most common wastewater treatment processes, describe their function, factors affecting their operation and how they are combined in the treatment processes.

6.152 Wastewater Technology II — 5 class hrs/wk 3 credits
This course will enable the student when confronted with an actual unit process unit or appropriate facsimile, describe the normal operation procedure to follow, including determination of loading factors, causes, preventive maintenance, and those aspects of the procedures relating to employee safety.
Prerequisite: Wastewater Technology I.

6.153 Wastewater Technology III — 5 class hrs/wk 3 credits
This course will enable the student, when confronted with certain actual process units or appropriate facsimiles, with indications of abnormal operating conditions, and mechanical malfunctions, recognize as such, describe probable causes, the immediate and long term corrective measures necessary and the reference tools required.
Prerequisite: Wastewater Technology I & Wastewater Technology II.

6.154 Wastewater Technology IV — 5 class hrs/wk 3 credits
A continuation of Wastewater Technology I-III. This course covers the same material as Wastewater Technology III for process units not previously included.
Prerequisite: Wastewater Technology I-III.

6.155 Wastewater Technology V — 5 class hrs/wk 3 credits
This course will enable the student, with respect to wastewater treatment plants, when confronted with the actual conditions or appropriate facsimile of wastewater entering or of waste stream within a plant, to name the units involved in dealing with the condition and to describe how the units do so.
Prerequisite: Wastewater Technology I-IV.

6.158 Sanitary Seminar I — 1 class hr/wk 1 credit
This course will enable the student to use the available resources related to the fulfillment of needs for accomplishment of personal and professional growth of wastewater treatment plant operating personnel.
Prerequisite: Wastewater Technology III.

6.159 Sanitary Seminar II — 1 class hr/wk 1 credit
This course will enable the student to prepare an outline for a presentation describing the operation of a specific wastewater treatment plant to a group of lay persons and actually give the presentation in class.
Prerequisite: Wastewater Technology I & Sanitary Seminar I.

6.161 Wastewater Management I 4 class hrs/wk 4 credits
This course will enable the student to prepare orders for supplies, service and parts, operations reports, and annual budgets, as well as list manpower requirements and needed capital improvements in the operation of wastewater treatment plants.
Prerequisite: Wastewater Technology III.

6;162 Wastewater Management II 4 class hrs/wk 4 credits
This course will enable the student to establish procedures for hiring, orienting, disciplining and discharging wastewater treatment plant personnel, promote and improve the public image of wastewater treatment plant operations, and recognize a major disaster in wastewater treatment plan operation and exercise the judgement required to perform the procedure to rectify it.
Prerequisite: Wastewater Technology IV, Wastewater Management I.

6.165 Wastewater Operations Project 6 class hrs/wk 4 credits
Using the techniques developed and data collected in In-Plant Practicum I and skills obtained in previous courses to this, the student will prepare a simulated annual operations report.
Prerequisite: Wastewater Technology IV, Wastewater Management I, In-Plant Practicum I.

6.168 In-Plant Practicum I 40 class hrs/wk 10 credits
This course, which consists of actual, full time training in a wastewater treatment plant, will enable the student to use the skills learned in previous courses to actually perform such duties as he is able in the operation of units.
Prerequisite: Wastewater Technology II, Sanitary Microbiology II, Sanitary Chemistry I.

6.174 Sanitary Chemistry I 5 class hrs/wk 3 credits
This course will enable the student to perform the following laboratory tests on wastewater: settleable solids, suspended and volatile suspended solids, pH, dissolved oxygen, BOD, chlorine residual, and temperature.
Prerequisite: Basic Chemistry I and II.

7.175 Sanitary Chemistry II 5 class hrs/wk 3 credits
A continuation of Sanitary Chemistry I, this course will enable the student to perform the following additional laboratory tests on wastewater and the wastestream: chemical oxygen demand, sludge tests including: volatile solids, suspended solids, settleable solids, sludge volume index, density index, age, filterability, total acidity, alkalinity, volatile acids, chloride ion, and chlorine demand.
Prerequisite: Sanitary Chemistry I.

6.176 Sanitary Chemistry III 5 class hrs/wk 3 credits
A continuation of Sanitary Chemistry II, this course will enable the student to perform the balance of laboratory tests on the wastestream required in the operation of wastewater treatment plants. These tests are: ammonia nitrogen, nitrate and nitrite ion, Kjeldahl nitrogen, (organic and total), total phosphate, orthophosphate, CO_2, H_2S, CH_4, grease, pH, (potentiometric, conductivity, dissolved oxygen (by meter) and BOD-ultimate (Warburg procedure).
Prerequisite: Sanitary Chemistry I and II.

6.235 Hydraulics and Practical Physics 6 class hrs/wk 4 credits
A study of the principles of physical measurement, hydraulics, pumps, flow measurement and simple mechanics.

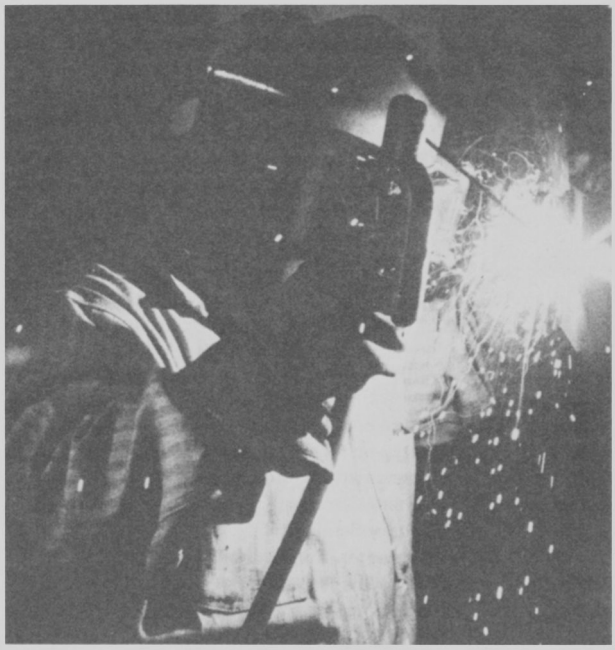
WELDING

The one year certificate welding program can be entered at any time during the academic year and be completed in three 12 week quarters. Classes and laboratory periods are provided so that the student can develop the skills, habits, attitudes and knowledge that will prepare him for a wide range of job opportunities is provided to prepare for and undergo certain weldor certification tests. These tests are administered by independent agencies.

An institutional, one year certificate of completion will be issued upon fulfillment of the program requirements.

ONE YEAR CERTIFICATE

3.444	Welding Metallurgy	4
4.100	Blueprint Reading and Sketching	2
4.108	Industrial Safety	2
4.145-6	Industrial Mathematics I, II	8
4.240	Basic Arc Welding	6
4.241	Intermediate Arc Welding	6
4.242	Basic Oxyacetylene Welding	4
4.243	Intermediate Oxyacetylene Welding	4
4.245	Layout Procedures for Welding	3
4.246	Advanced Arc Welding	6
4.250	Advanced Oxyacetylene Welding	4
Suggested Elective		
4.153	Welding Seminar	3



COURSE DESCRIPTIONS

4.151-2 Welding I, II 5 class hrs/wk 3 credits
Set-up and operation of Oxyacetylene welding, metal arc welding, and cutting equipment. Demonstrations and practice in welding, brazing and soldering ferrous and non-ferrous metals and their alloys. Technical information on use of rods, composition of metal and application is included. Various types of welds are made and tested. (for non-majors)

4.153 Welding Seminar 3 class hrs/wk 3 credits
Lecture and discussion sessions covering the field of welding, selection of equipment, welder certification, etc.

4.240 Basic Arc Welding 14 class hrs/wk 6 credits
An introduction to arc welding practices on mild steel of various thicknesses, and joint configurations in all positions on mild steel.

4.241 Intermediate Arc Welding 14 class hrs/wk 6 credits
This course is a continuation of Basic Arc Welding 4.420. Areas of consideration will be arc welding mild steel and commonly used ferrous and non-ferrous alloys employing the metal arc, TIG and MIG process.

4.242 Basic Oxyacetylene Welding 8 class hrs/wk 4 credits
An introduction to oxyacetylene welding practices on mild steel of various thicknesses and joint configurations in all positions on mild steel.

4.243 Intermediate Oxyacetylene Welding
8 class hrs/wk 4 credits
This course is a continuation of Basic Oxyacetylene Welding 4.242. Areas of consideration will be oxyacetylene welding, soldering, brazing and braze welding of various similar and dissimilar metals.

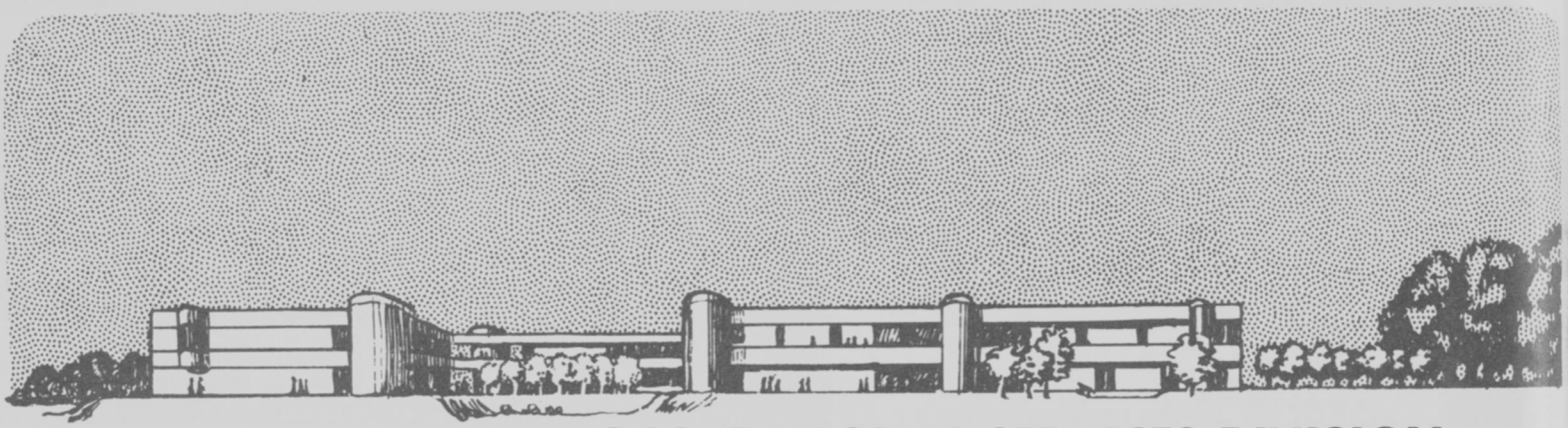
4.245 Layout Procedures for Welding 5 class hrs/wk 3 credits
A course to introduce layout principles and applications. Tools and equipment for lay-out are studied in respect to their operating performance while stressing the importance of maintenance of these tools. Laboratory work will consist of planning and construction of templates, layout followed by actual fabrication in specific areas to examine the quality of the layout process.

4.246 Advanced Arc Welding 14 class hrs/wk 6 credits
This course is a continuation of Intermediate Arc Welding 4.241. The areas of consideration will be preparation for welder certification in all positions with the metal arc process.

4.250 Advanced Oxyacetylene Welding
8 class hrs/wk 4 credits
This course is a continuation of Intermediate Oxyacetylene Welding 4.243. Areas of consideration will be fabrication layout procedures, pipe joint preparation, and large and small diameter pipe welding in all positions.

9.148 Preparation for Welder Certification
8 class hrs/wk 3 credits
A course designed to provide the necessary information and skill development to successfully undergo certain weldor certification tests administered by independent agencies. Several of these tests are provided upon completion of the course.
Prerequisite: Approval of instructor.

9.151-2 Beginning, Advanced Welding
(Evening Adult Extension)
Set-up and operation of Oxyacetylene welding, metal arc welding (including TIG and MIG equipment) and cutting equipment. Demonstrations and supervised practice are provided on ferrous and non-ferrous metals in all positions. Technical information on choice of electrodes and their application, welding power sources and accessories, and metal identification is included.



OCCUPATIONAL SERVICES DIVISION

CHAIRMAN: W. A. Jordan
FACULTY: Gayle Green, Virginia McCraw, Peggy Preston, Vera Collins, Hal Johnson, Jean Schreiber, Richard Hankey.

PARENT-CHILD EDUCATION

CHILD CARE

Plans calling for the implementation of a series of courses within a certificate program in Child Care are currently underway. This program is expected to start Fall Term 1972. The curriculum is constructed to provide training for child care personnel, teaching assistants and aides.

PARENT EDUCATION

Parent education courses are being developed to offer training assistance for parents contemplating parent pre-school cooperative services, to provide resources for parenting skill development and to meet the training needs of community professionals working with families.

AGRICULTURE

The Agricultural Services Technology program is a course of study to train qualified students for employment in marketing, sales, service, processing, management and distribution functions that are related to agriculture in off-farm occupations. Specific training in Agriculture courses and related business subjects will enable the student to qualify for a position in the turf management industry, fertilizer and chemical industry, turf and forage seed industry and other agriculture related occupations.

Students enrolling in the Agriculture Services Technology program may choose from several one-year certificate programs or the two-year curriculum leading to an Associate of Science Degree. The one-year certificate program (comparable to freshman year of the two-year program) offers three options:

1. Turf Management
2. Fertilizer and Chemicals
3. Turf and Forage Seed Technology

Students working toward an Associate Degree follow one of the three options during their freshman year and complete the degree requirements during their sophomore year. Students are encouraged to participate in an on-the-job experience during spring and/or summer quarter between the first and second year of the program.

FERTILIZER AND CHEMICALS PROGRAM

FRESHMAN YEAR

	Mathematics (0.668, 4.145, or 1.110)	3
1.606	Introduction to Psychology & Human Relations	3
4.205-6	Basic Chemistry	6
8.100	Survey of Agriculture	1
8.125-7	Soils I, II, III	9
8.130	Agriculture Chemicals	4
8.131	Pest Control	3
8.165	Plant Science	4
8.188	Ag Equipment Maintenance	3
8.230	Work Experience (Agriculture) or electives during Spring Quarter	10
PE 190	Physical Education	1

SOPHOMORE YEAR

The two-year program leading to an Associate Degree in Science requires the completion of a one-year certificate program and the second year program as outlined below.

1.101, 1.104	Communications Skills I, II	6
1.524	Applied Economics	3
8.138	Irrigation and Drainage	3
8.230	Work Experience (Agriculture)	10
	Agriculture Elective	3
BA 101	Introduction to Business	4
	Business Electives	9
HE 250	Health	2
PE 190	Physical Education	1

TURF AND FORAGE SEED PROGRAM

FRESHMAN YEAR

	Mathematics (0.668, 4.145, 1.110)	3
1.606	Introduction to Psychology & Human Relations	3
4.205-6	Basic Chemistry	6
8.100	Survey of Agriculture	1
8.120	Seed Technology	3
8.121	Seed Cleaning (on demand)	3
8.125-6	Soils I, II	6
8.130	Agriculture Chemicals	4
8.165	Plant Science	4
8.180	Warehouse Management	1
8.188	Ag Equipment Maintenance	3
8.230	Work Experience (Agriculture or electives)	10
PE 190	Physical Education	1

SOPHOMORE YEAR

The two-year program leading to an Associate Degree in Science requires the completion of a one-year certificate program and the second program as outlined below.

1.101, 1.104	Communications Skills I, II	6
1.524	Applied Economics	3
8.138	Irrigation and Drainage	3
8.230	Work Experience (Agriculture	10
	Agriculture Elective	3
BA 101	Introduction to Business	4
	Business Electives	9
HE 250	Health	2
PE 190	Physical Education	1
	Electives	6

TURF MANAGEMENT PROGRAM

FRESHMAN YEAR

4.205-6	Basic Chemistry	6
8.100	Survey of Agriculture	1
8.125-6	Soils I, II	6
8.130	Agriculture Chemicals	4
8.135-6	Turf Management I, II	6
8.140	Landscape Management	3
8.165	Plant Science	4
8.188	Ag Equipment Maintenance	3
8.230	Work Experience (Agriculture)	10
PE 185	Fundamentals of Golf or Elective PE	1

SOPHOMORE YEAR

The two-year program leading to an Associate Degree in Science requires the completion of a one-year certificate program and the second year program as outlined below.

1.110, 1.104	Communication Skills I, II	6
1.606	Introduction to Psychology & Human Relations	3
8.137	Turf and Plant Establishment	3
8.138	Irrigation and Drainage	3
8.141	Landscape Planning	3
8.230	Work Experience (Agriculture)	10
BA 101	Introduction to Business	4
	Electives (Business)	6
PE 190	Physical Education	1
HE 250	Health	2
	Electives	5

COURSE DESCRIPTIONS

8.100 Survey of Agriculture 1 class hr/wk 1 credit
Provides information on employment opportunities in marketing, sales, service, processing, management, and distribution functions that are related to agriculture off-farm occupations. Students will become acquainted with their own specific area of interest through individualized study.

8.120 Seed Technology 3 class hrs/wk 3 credits
A course in the reproductive processes, environmental response and the harvesting and processing of seed crops. Laws and regulations governing the seed industry and seed certification programs will also be covered. Laboratory work will emphasize weed and crop seed identification, seed processing and seed testing.

8.121 Seed Cleaning 6 class hrs/wk 3 credits
A comprehensive course in seed cleaning. The course is organized around practical experience in actual seed plant operations.

8.125 Soils I 4 class hrs/wk 3 credits
A basic course in soil science designed to provide necessary background for work with fertilizer, irrigation, drainage, and other soil management practices. Physical, chemical and biological properties of the soil will be discussed in relation to plant growth.

8.126 Soils II 4 class hrs/wk 3 credits
The second phase of soils instruction which deals with plant nutrition, and the proper use of fertilizer and other soil amendments. Diagnosing plant problems, soil testing, fertilizer recommendation, methods of application and storage and handling will be emphasized.

8.127 Soils III 3 class hrs/wk 3 credits
Third in the sequence to deal with practical application of knowledge of fertilizers. Special emphasis will be given to field projects to promote understanding and skill competencies in this phase of learning.

8.130 Agriculture Chemicals 5 class hrs/wk 4 credits
The course deals with the use and chemistry of herbicides, insecticides, fungicides and nematocides. The types of material, safety in handling and storage, and methods of application are emphasized. Students develop the ability to interpret and to explain to customers the directions and precautions to be observed with various agriculture chemicals. Attention will also be given to procedures used in keeping current with new product development.

8.131 Pest Control 4 class hrs/wk 3 credits
A course of study which will include the classification, anatomy, growth, life history, recognition and control principles of selected weed diseases, and insect pests.

8.135 Turf Management I 5 class hrs/wk 3 credits
The course introduces and developes the art and science of turf-grass culture. Grass identification and maintenance, fertilizer and water requirements, weed, insect and disease identification and control and other turf problems are emphasized.

8.136 Turf Management II 5 class hrs/wk 3 credits
A course designed to provide students with the opportunity to adapt and apply principles and theories taught in Turf Management I. Field trips to observe common practices, and actual maintenance and management of turf areas by students will provide these opportunities. Business practices and procedures will also be emphasized.

8.137 Turf and Plant Establishment 5 class hrs/wk 3 credits
A course designed to teach the principles, methods, techniques and facilities used to propagate turfgrasses and other ornamentals used in turf areas.

8.138 Irrigation and Drainage 4 class hrs/wk 3 credits
The course discusses the principles and practices of irrigation, including soil, water, and plant relations; and water sources, quality, methods of distribution and measurement. System design and selection will also be emphasized. Surface and subsurface drainage systems will be discussed.

8.140 Landscape Maintenance 5 class hrs/wk 3 credits
A course designed to teach the principles, methods, techniques, and use of equipment for maintenance of turf areas.

8.141 Landscape Planning 5 class hrs/wk 3 credits
A course in the basic layout and design, site utilization and orientation of turf facilities. Landscape contours, grading, trees, shrubs, floral selection, utilization and fertilization are also discussed.

8.165 Plant Science 5 class hrs/wk 3 credits
A course which teaches the basic structure of plant life with emphasis placed on crop and ornamental plants. Environmental forces are discussed in relation to plant development and selection. Identification of common plants is also included.

8.180 Warehouse Management 1 class hr/wk 1 credit
The course will deal with procedural aspects of warehouse and elevator operation, state and federal licensing requirements, warehouse receipts, inventory control, safety, fire prevention and sanitation.

8.188 Ag Equipment Maintenance 5 class hrs/wk 3 credits
A course designed to teach the principles, maintenance and repair of small engines used on power equipment.

8.230 Work Experience (Agriculture) Max. 10 credits/quarter
Employment in positions providing practical experience in the various aspects of agriculture suited as nearly as possible to the student's wants and capabilities. Supervised by employer and college coordinator.

8.812 Seed Cleaning 3 credits
To furnish entry and updated skills for seed cleanermen. Will include equipment operation, safety and maintenance. Seed laws and regulations, seed and weed identification.

9.813 Agriculture Chemicals 3 class hrs/wk 3 credits
The course deals with the use and chemistry of herbicides, insecticides, fungicides and nematocides. The types of materials, safety in handling and storage, and methods of application and mephasized. Students develop the ability to interpret and to explain to customers the directions and precautions to be observed with various agriculture chemicals. Attention will also be given to procedures used in keeping current with new product development.

9.814 Soils and Fertilizers 3 class hrs/wk 3 credits
Presentation and discussion of basic facts of Soil Science and fertilizers as they relate to corp production.

9.822 Artificial Insemination 13 class hrs/wk 3 cr.
Inseminator training program with emphasis on dairy and beef cattle. Exceeds requirements of Minimum Standards National Association Animal Breeders, Herdsman-Inseminator Training Program.

9.817 Introduction to Animal Science 3 credits
A basic course in Animal Science production to provide students with a comprehensive view of the modern livestock industry in the area. This course includes a general introduction to the breeds, care, reproduction, feeding of animals and other basic skills pertinent to livestock operations.

ASSOCIATE DEGREE NURSING

PROGRAM DESCRIPTION

This two academic year program is open to both men and women of all ages and is designed to prepare students to be highly skilled bedside nurses (R.N.) oriented to patient care. Students who complete the course receive an Associate of Science Degree in Nursing from the college and are eligible to take the Oregon State Board Test Pool Examination for Registered Nurse Licensure. Clincial facilities utilized are: Albany Convalescent Home; Albany General Hospital; Good Samaritan Hospital, Corvallis; Corvallis Manor; Lebanon Community Hospital; Oregon State Hospital, Salem.

ACCREDITATION

The program is accredited by the Oregon Board of Education, Oregon Board of Nursing and is working toward full accreditation by the National League of Nursing.

STANDARDS OF PERFORMANCE

Following acceptance into the nursing program, the student shall achieve an overall grade point average of 2.00 ("C") in all courses attempted. In addition, the student shall make a satisfactory grade ("C" or above) in all courses required by the Nursing Department (*see Program of Study* for required courses). A student's enrollment in the nursing program may be discontinued at any time, if in the judgment of the nursing faculty, the student is not suitable for a nursing career. A student who is dropped from the program shall not be readmitted to the program except in rare cases, and then only by special permission of the Nursing Department faculty and Chairman.

The nursing faculty reserves the right to drop from its rolls, any student who has been absent from lecture more than three times or absent from laboratory more than twice. A student fails in a nursing course ("F") if he cannot perform satisfactorily in the clinical laboratory regardless of academic performance.

All nursing courses shall be completed at Linn-Benton Community College, unless special permission for transfer credit is arranged with the Chairman of the Nursing Department and the Dean of Students.

Students who are admitted to the Nursing Department shall be required to hold student nurse liability insurance and be members of the Students Nurses of Oregon (SNO).

FRESHMAN YEAR

5.711	Nursing I*	5
5.712	Nursing II*	5
5.713	Nursing III*	8
5.726-8	Nursing in Cont. Soc.*	3
4.201-3	Integrated Basic Science*	12
4.211-2	Nutrition I, II*	6
Psy 201-2	Psychology*	6
Soc 204	General Sociology*	3

SOPHOMORE YEAR

5.721	Nursing IV*	9
5.722	Nursing V*	12
5.723	Nursing VI*	8
5.729	Nursing in Cont. Soc.*	1
Wr 111-2	Writing	6
PE 180/190	Physical Education**	1
Hst 101	History of West. Civiliz.*	3
	Humanities	3
	Elective	3

*Courses REQUIRED for A.D.N. MUST be taken in sequence.
**Physical Education may be taken any term.

COURSE DESCRIPTIONS

5.711-3 Nursing I, II, III
Introduction to the role of the nurse in meeting the needs common to patients of all ages. Basic "fundamentals" plus normal prenatal care, growth and development, developmental tasks for all ages and beginning communication. Beginning physical and mental illness for all ages including labor and delivery and post-partum care, with emphasis on practice in problem solving. Independent learning tasks, demonstrations, audio-visual aids, discussion and lecture are used in the classroom. Supervised practice in the clinical area is provided with pre-and post-conferences to evaluate planned patient care. Individually scheduled tutorial sessions are offered in addition to published schedules. Must be taken in sequence.

5.711 Nursing I 9 class hrs/wk 5 credits
5.712 Nursing II 9 class hrs/wk 5 credits
5.713 Nursing III 14 class hrs/wk 8 credits
Admission to Nursing Program is required.

5.726-9 Nursing 1 credit each term
The nursing role defined, based on the history of the profession, current theories pertaining to the nature of health and disease, and selected responsibilities of the role of the nurse in society and as a practitioner. The reciprocal influences between society and nursing are identified as they relate to biological, sociological, psychological and therapeutic milieu. Must be taken in sequence.
Prerequisite: Permission of the instructor.

5.721-3 Nursing IV, V, VI

The continued study of major areas of illness in the United States, including complications of pregnancy. Consideration is given to the scope, prevention, diagnosis, treatment and psycho-social aspects of illness with an emphasis on decision making. Deviations from normal growth and development which predispose to illness are presented. The rehabilitative aspect of nursing care is studied with consideration of available community agencies. Social workers, psychologists and psychiatrists collaborate in the study of basic concepts of personality and behavior with attention given to psychological processes ranging from "normal" to extreme deviation in mental health. Additional topics include legal aspects and trends in nursing, community health, leadership skills and an overview of specialty nursing areas.

5.721 Nursing IV	17 class hrs/wk	9 credits
5.722 Nursing V	24 class hrs/wk	12 credits
5.723 Nursing VI	14 class hrs/wk	8 credits

Prerequisite: Full sophomore standing in Nursing. Must be taken in sequence.

COSMETOLOGY (PROPOSED)

The Cosmetology program at Linn-Benton Community College is a cooperative program between LBCC and state approved beauty schools. The students will complete 40 credits of general course studies at LBCC and 2500 clock hours – or 53 credits at a beauty school licensed by the State Board of Cosmetology. At the completion of course work, the student must pass the Oregon Board of Cosmetology examination before being given a license to practice.

FIRST QUARTER		
Art 195	Basic Design	2
1.101	Communication Skills I	3
2.530	Bookkeeping I	3
HE 250	Personal Health	2
9.502	Psychology for Supervisors	3
PE 180/190	Physical Education	1
SECOND QUARTER		
1.102	Communication Skills II	3
9.506	Human Relations	3
2.748	Personal Development for Career Women	2
2.119	Business Management	3
PE 180/190	Physical Education	1
Art 196	Basic Design	2
	Electives	
THIRD QUARTER		
2.110	Principles of Salesmanship	3
4.205	Basic Chemistry I	3
Art 293	Elementary Sculpture	2
Eng 104	Introduction to Literature	3
	Electives	
ELECTIVES: OPTIONAL		
1.505	Employer-Employee Relations	3
2.131	Elements of Marketing	3
2.134	Retail Merchandising	3
1.610	Public Speaking	3
2.119	Business Management	3
4.207	Microbiology	3
Art 290	Painting	3
Art 291	Drawing	3

Balance of program in Cosmetology (2500 clock hours – 53 credits) is taken at a beauty school (licensed by the State Board of Cosmetology.

CRIMINAL JUSTICE

The Criminal Justice Studies Curriculum is designed to provide in-service personnel with the opportunity to increase their professional competence and their value to their employing agencies, to upgrade the general caliber of police, corrections, and court officers, and to make available educational experiences for students who desire careers in the Criminal Justice System. The curriculum consists of a basic core of twelve credit hours required of all criminal justice studies majors. (The basic core includes LE 111, 112, 113, 211).

After completing the basic core, the student may take a number of courses in the option of his interest. The options currently offered are (1) Law Enforcement, including police and deputy sheriff, and (2) Corrections, including probation, parole and correctional personnel. Candidates for the A.A. degree, in addition to the general degree requirements of the college, would complete the basic core and six additional credit hours in the option of their choice. Candidates for the A.S. degree, in addition to general degree requirements, would complete the basic core plus up to eighteen additional units in criminal justice studies.

COURSE DESCRIPTIONS

LE 111, 112, 113 Law Enforcement and Society 3 hours each
Historical development of law enforcement; analysis of current crime picture; criminal behavior; professional career orientations; constitutional law enforcement.

LE 211 Administration of Criminal Justice 3 hours
Survey of process of justice from arrest to return of offender to society; jurisdiction of city, county, state, and federal police agencies, constitutional rights of individuals in America.
Prerequisite: LE 111 or consent of instructor.

CJS 5.220 Arrest, Search, and Seizure 3 hours
Admissibility of evidence and confessions, recent judicial decisions, interpreting civil rights of suspects, and responsibilities of law enforcement officers in the discharge of their duties.
Prerequisites: CJS 5.222 Law of Evidence and 5.223 Criminal Law or consent of instructor.

CJS 5.221 Criminal Investigation 3 hours
Investigative methodology, modus operandi, sources of information, surveillance, interrogation, preliminary and follow-up investigations.
Prerequisite: 5.222 Law of Evidence and 5.223 Criminal Law or consent of instructor.

CJS 5.222 Law of Evidence 3 hours
Leading rules and principles of exclusion and selection, burden of proof, nature and effect of presumptions; examination, competency, and privilege of witnesses.
Prerequisite: CJS 5.223 Criminal Law or consent of instructor.

CJS 5.223 Criminal Law 3 credits
History and development of criminal law, elements of a crime, parties to a crime, elements of specific offenses; Oregon Criminal Code.
Prerequisite: LE 111 or consent of instructor.

CJS 5.224 Patrol Procedures 3 credits
Responsibilities and duties of uniformed patrolmen, patrol procedures, field interrogation, arrest and transportation of prisoners, raids, and crime prevention functions.
Prerequisite: LE 111-3 or consent of instructor.

CJS 5.225 Traffic Procedures 3 credits
Enforcement, education, and engineering in the control and prevention of traffic accidents; Oregon motor vehicle and other laws related to traffic problems.
Prerequisite: LE 111 or consent of instructor.

CJS 5.229 Counseling and Interviewing 3 credits
Fundamentals of counseling and interviewing in correction and rehabilitation work; development of case histories and reports.
Prerequisites: LE 111-3 or consent of instructor.

CJS 5.230 Fundamentals of Crime and Delinquency 3 credits
Causes of crime and methods of dealing with criminality.
Prerequisite: LE 111-3 or consent of instructor.

CJS 5.231 Civil Procedures 3 credits
Fundamentals of the law of contracts, torts, and personal property, including liens, landlords and tenant as they apply to the criminal justice system.
Prerequisite: LE 111-3 or consent of instructor.

CJS 5.232 Juvenile Law and Procedures 3 credits
Organization, functions, and jurisdiction of juvenile agencies, including juvenile law, court procedures, and disposition of cases.
Prerequisite: LE 111-3 or consent of instructor.

CJS 5.233 Institutions and Agencies 3 credits
History, objectives, and evaluation of community, state, and federal agencies involved in the disposition of offenders and potential delinquents.
Prerequisite: LE 111-3 or consent of instructor.

DENTAL ASSISTANT

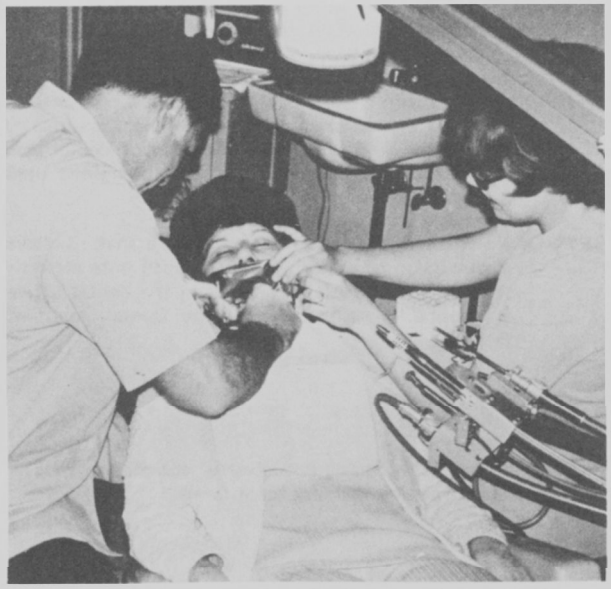
The Dental Assistant curriculum is designed to prepare individuals for receptionist-office management, technical or chairside assistant and inter-office laboratory procedures. To enable the student to gain the ability for intelligent and skillful application in fundamental techniques in the manipulation of equipment methods; for familiarization with problems, facts, theories, principles, and for problem solving in the technologies in keeping with accepted professional standards. The course has a preliminary provisional accreditation by the Council of Dental Education and graduating students are eligible to take the Certification Exam administered by the Certifying Board of the American Dental Assistants Association.

Oregon Law requires Dental Assistants who expose dental x-rays to hold a Certificate of Radiological Proficiency. Radiology I, II, III prepares students for examination by the Oregon State Board of Dental Examiners. The Dental Assisting program includes basic dental sciences, oral anatomy, pathology nutrition and sterilization. Fundamentals of chairside assisting, technical skills, basic dental office records, office management and supervised clinical experiences. Concepts of oral health service, psychological considerations in patient treatment and an understanding of auxiliary personnel's professional responsibilities are an integral part of the program.

Emphasis is placed on the value of the development of proper attitudes and work habits, particularily in regard to accuracy, safety, cleanliness, conduct on the job; and to recognize the need for continuing education once they are in the field of employment.

The program accepts one class per year, summer term. Class size is limited. High school graduation or equivalency is required. A background of high school biology is required. High school typing and chemistry are recommended. Applicant must be in good physical and mental health as determined by a doctor's report. Applicants are asked to take the general aptitude test battery (Med. series 079.378), and make an appointment for a personal interview with the Dental Assistant Director. Final selection is made by the Dental Assistant Acceptance Committee. Books, special clothing and miscellaneous costs total approximately $215.00.

SUMMER		
1.101	Communication Skills I	3
SS 121	Typing	2
4.201	Integrated Basic Science I	3
2.748	Personal Development/Career Woman	3
5.445	Introduction to Dental Assisting	3
FALL		
4.202	Integrated Basic Science II	3
5.484	Dental Materials/Lab I	2
1.606	Introduction to Psychology	3
5.461	Dental Radiology I	2
5.494	Clinical Practice I	4
WINTER		
5.453	Dental Pathology	1
5.505	Dental Specialties	1
5.485	Dental Materials/Lab II	2
5.491	Dental Office Records	3
5.495	Clinical Practice II	4
5.462	Dental Radiology II	1
SPRING		
5.510	Office Practicum	8
5.510	Office Practicum Seminar	3
5.463	Dental Radiology III	1



COURSE DESCRIPTIONS

5.445 Introduction to Dental Assisting 3 class hrs/wk 3 credits
An introduction to the practice of dentistry, dental terminology and the various aspects concerned with the profession and the Dental Assistant.

5.453 Dental Pathology 1 class hr/wk 1 credit
A study of common pathological diseases, injured and normal tissue developmental anamalies.
Prerequisite: Integrated Basic Science II.

5.461 Dental Radiology I 2 class hrs/wk 2 credits
An introduction to the Histroy and Principles of x-ray, terminology and the hazards of radiation and safety factors. An introduction to the techniques for intra-oral periaspical and bitewing film.

5.462 Dental Radiology II 3 class hrs/wk 1 credit
Techniques of Radiology, positioning the patient and angulation. X-ray film, chemistry of development and fixation and complete darkroom procedures. Actual working procedures introduced.
Prerequisite: Dental Radiology I

5.463 Dental Radiology III 3 class hrs/wk 1 credit
Working procedure dealing with the difficult patient. A study of pathological conditions. Review in entirety in preparation for Radiology Certification by the OREGON State Board of Dental Examiners.
Prerequisite: Dental Radiology II.

5.484 Dental Materials/Lab I 4 class hrs/wk 2 credits
An introduction of dental materials, their composites and properties. Practical experience in handling and manipulating operatory and laboratory equipment.
Prerequisite: Admittance to Dental Assistant Program.

5.485 Dental Materials/Lab II 4 class hrs/wk 2 credits
A continuation of dental materials and dental lab procedures and experiences.
Prerequisite: Dental Materials I

5.491 Dental Office Records 3 class hrs/wk 3 credits
Dental Office records, patient reception, appointment scheduling, record maintenance, financial arrangements and coordination and supply control.

5.494 Clinical Practice I 8 class hrs/wk 4 credits
An introduction to practical office procedures including instrumentation, tray set-ups, rubber dam and restorative procedures. Equipment and its care, patient seating and dismissal and general first aid.
Prerequisite: Introduction to Dental Assisting 5.445.

5.495 Clinical Practice II 8 class hrs/wk 4 credits
A continuation of Clinical Practice I in general chairside assisting. Practical applications of dental procedures. Patient Education in preventive dentistry.
Prerequisite: Clinical Practice I.

5.505 Dental Specialities 1 class hrs/wk 1 credit
Specialist in the dental profession to acquaint the student with all types of dental specialization.
Prerequisite: Integrated Basic Science II 4.202.

5.510 Office Practicum 24 clinical hrs/wk 8 cr.
Students are assigned to ethical clinical practice for observation andppractical application of dental assistant procedure. The student will be trained under proper supervision.
Prerequisite: *Third term status.

5.510 Office Practicum Seminar 3 class hrs/wk 3 credits
A discussion of office situations which arise after the student has entered externship in the dental office. A general overall review of the Dental Assistant Program.

*NOTE: Third Term Status is successful completion of every course during the first three terms.

FIRE SCIENCE

The Fire Science program is designed to bring to the student those skills and the related knowledge necessary for pursuing entry level employment in a wide field including private, commercial, and governmental organizations. The curriculum requires several subject matters for required courses; however, several hours of electives will permit a student to receive credit in areas of personal interest.

Satisfactory completion of the requirements of the program will lead to the Associate Degree in Fire Science.

It may be helpful for students interested in a given field to obtain interviews with prospective employers to help them plan elective courses to meet their goal. Also, some municipal fire departments may have certain requirements that must be satisfied for employment.

Students are encouraged to seek counseling assistance since many of the courses in this program are only offered in the evening program.

	FRESHMAN YEAR	
1.101, 1.104	Communication Skills I, II	6
1.606	Introduction to Psychology & Human Relations	3
4.100	Blueprint Reading & Sketching	2
4.145-6	Industrial Math I, II	6
5.250	Fire Fighting Skills I	3
5.251	Fire Fighting Skills II	3
5.253	Fire Apparatus & Equipment	3
5.254	Introduction to Fire Protection	3
5.255	Rescue & Emergency Care for Fire Science	3
5.264	Building Const. for Fire Prevention	3
5.287-8	Physics, Fire Science I, II	6
HE 250	Personal Health	2
PE 190	Physical Education *	1
	*Not required for In Service Program.	
	SOPHOMORE YEAR	
1.124	American Institutions	3
5.240	Technical Report Writing	3
5.260-1	Hazardous Materials I, II	6
5.262	Fundamentals of Fire Prevention	3
5.263	Hydraulics & Pump Operation	3
5.265	Fire Dept. Organization & Management	3
5.272	Fire Protection Systems	3
5.273	Fire Investigation	3
9.500	Elements of Supervision	3
	Electives	3

NURSING ASSISTANT

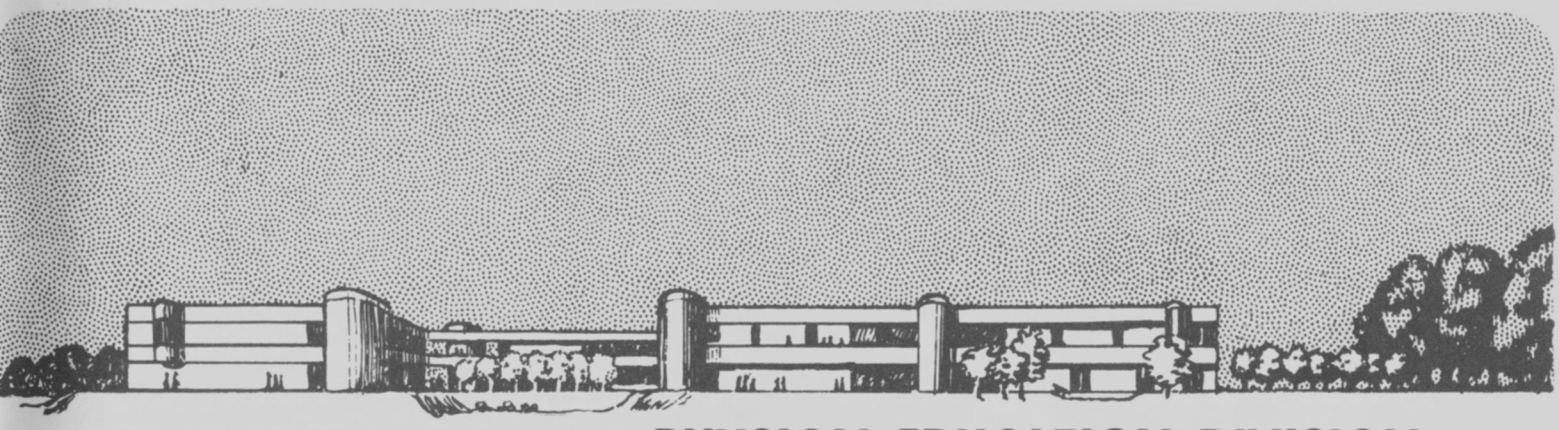
The Nursing Assistants program is a 12 week course which prepares men and women, ages 17-62, for a positions as nurses aides and orderlies in hospitals, nursing homes and with health services.

Classroom and on-the-job experience provides the student with the background needed to care for the moderately ill or convalescent patient under supervision of a professional nurse.

Course work includes both class and clinical experience.

While many of the graduates of the program are placed in positions with hospitals, nursing homes or with the health services, others use this training as a starting point toward related health careers such as physical therapy and licensed practical nurse.

	CURRICULUM	Class	Clinic	Total
I.	Introduction	8		8
II.	Physical Environment	12	35	47
III.	Social Environment	8	9	17
IV.	Daily Living Activities	50	124	174
V.	Therapeutic Health Measures	12	28	40
VI.	Nursing Care Plan	8		8
VII.	Job Application Procedures	6		6



PHYSICAL EDUCATION DIVISION

PHYSICAL EDUCATION DIVISION

CHAIRMAN: Dick McClain
FACULTY: Verlumd Kimpton, Arlene Crosman.

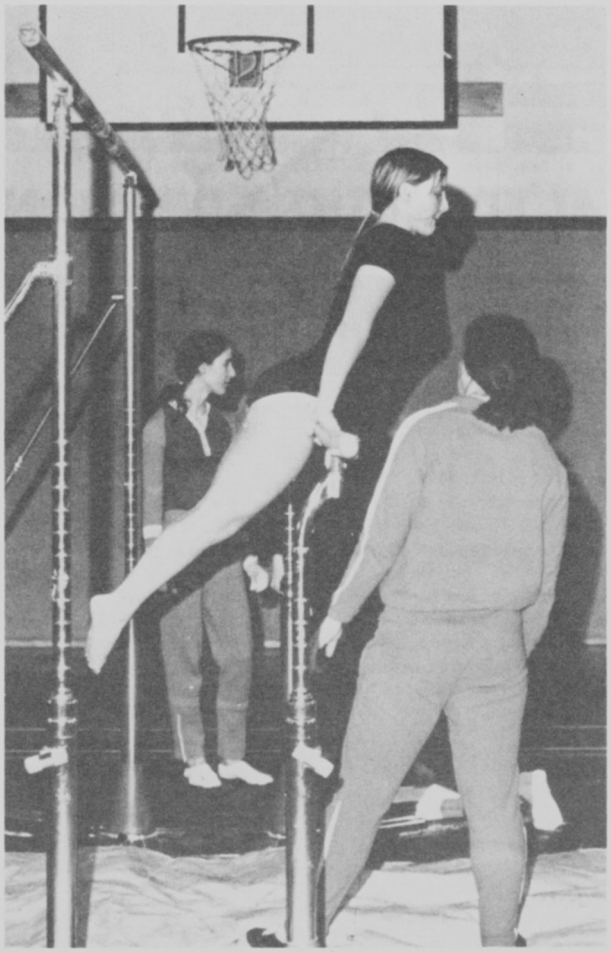
Educational opportunities allow students to learn skills in interested areas as well as maintain or gain physical fitness. The courses are designed to encourage students to continue some kind of activity after their college years. Courses in Health Education as well as First Aid allow students the opportunity to learn proper first aid procedures as well as pertinent information about personal health problems.

COURSE DESCRIPTIONS

PE 131 Introduction to Health, Physical Education and Recreation 3 hours
Professional orientation; basic philosophy and objectives; professional opportunities and qualification.

PE 180 Physical Education (Women) 3 class hrs/wk 1 credit
A variety of activities taught for physiological and recreational values. A total of five terms required for all lower division women students. 1 hour each term.

PE 185 Physical Education (Co-Educational) 3 class hrs/wk 1 credit
A variety of activities taught for physiological and recreational values. A total of five terms required for all lower division women and men students. 1 hour each term.



PE 190 Physical Education (Men) 3 class hrs/wk 1 credit
A variety of activities taught for physiological and recreational values. A total of five terms required for all lower division men students. 1 hour each term.

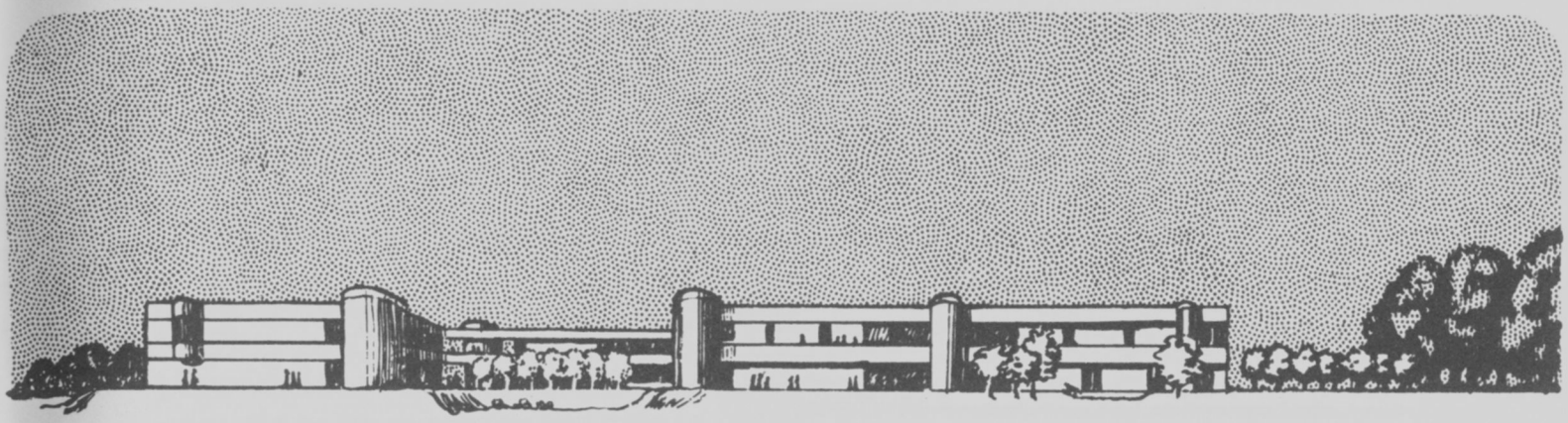
HE 250 Personal Health 2 class hrs/wk 2 credits
Application of facts and attitudes to the maintenance of optimum health for the individual and society; effects of alcohol, tobacco, drugs, with emphasis on family life, mental health, communicable and non-communicable diseases and nutrition. Satisfies the college requirement in health education for both men and women.

HE 252 First Aid 3 class hrs 3 credits
Theory and practice in immediate and temporary care given in case of accident or sudden illness. Complies with American Red Cross requirements. Meets standard and advanced certification requirements set by the American Red Cross.

9.317 Multi-Media First Aid 8 class hrs/wk 1 credit
The theory and practice in immediate and temporary care given in case of accident or sudden illness. This course is taught according to American Red Cross requirements through the Red Cross Multi-Media method. Offered on a workshop basis.

9.315 Standard First Aid 1 class hr/wk 1 credut
Theory and practice in immediate and temporary care given in case of accident or sudden illness. Complies with American Red Cross requirements.

9.601 Women's Gymnastic Judging 3 class hrs/wk 3 credits
This course is designed for individuals interested in girls gymnastics judging. The course will include both optional and compulsory FIG rules for women's gymnastics.



SCIENCE – MATHEMATICS DIVISION

SCIENCE & MATHEMATICS DIVISION

CHAIRMAN: Peter C. Scott.
FACULTY: James Baker, John Carnegie, Mike Morgan, Galen Nielsen, Dave Perkins, Steve Rasmussen, Wallace Reed, Robert Ross, Dell Swearingen, Ed Wright.

The Science and Mathematics Division seeks to provide service in four basic areas of need. The first of these is to provide a general background in scientific knowledge and applications for the non-science majors in the lower division transfer program. The primary goal in the biological and physical sciences at this level is to develop scientific literacy and awareness. The second area is a need to provide a strong background in the sciences for students planning to follow professional careers in science and science-related fields. Thirdly the division functions as a "service" division to the occupational and technical programs of the college. This role includes the upgrading of existing skills as well as the development of basic skills for students entering occupational programs. The fourth area is to meet the general educational needs in science and mathematics for the college district as a whole.

RECOMMENDED SCIENCE AND MATHEMATICS SEQUENCE

FOR OCCUPATIONAL AREA MAJORS

0.665	Study Skills Seminar	0
0.668	Basic Mathematics	4
1.110	Elements of Algebra	4
4.145-7	Industrial Math I, II, III	12
6.337	Slide Rule	1
6.261-3	Technical Math I, II, III	12
4.201-3	Integrated Basic Science I, II, III (ADN)	12
4.201-2	Integrated Basic Science I, II (Dental)	7
4.211-2	Nutrition I, II	6
4.205-6	Basic Chemistry I, II	6
4.320	Analytical Chemistry	3
4.300, 4.302	Practical Physics	8

FOR NON-SCIENCE MAJORS

Mth 100	Intermediate Algebra	4
Mth 103	Probability & Statistics	4
Mth 121-3	Math for Elementary Teachers	9
Mth 161-3	Math for Non-Science Majors	12
Mth 233	Introduction to Numerical Computation	3
Bi 101-3	General Biology	12
Ch 101-3	General Chemistry	9
GS 104-6	Physical Science	12

FOR SCIENCE & MATHEMATICS MAJORS

Mth 100	Intermediate Algebra	4
Mth 101	College Algebra	4
Mth 102	Trigonometry	4
Mth 110	Analytic Geometry	4
Mth 233	Introduction to Numerical Computation	3
Mth 200-3	Calculus	16
Ch 104-7	General Chemistry	17
Ch 226-9	Organic Chemistry	11
Bi 211-3	Biology for Majors	15
Bot 201-3	General Botany	12
Ph 201-3	General Physics	12
G 201-3	Geology	12

MATH COURSE DESCRIPTIONS

1.110 Elements of Algebra 4 class hrs/wk 4 credits
Introduction to the field properties for the real numbers. Development of the basic operations with algebraic expressions and methods for solving linear equations. The course introduces rational expressions and graphing and develops the solution of quadratic equations by factoring.
This course is designed for the student who has no previous instruction in algebra, needs a review of elementary algebra, or has had previous algebra, but has not been exposed to the "modern" concepts.

Mth 100 Intermediate Algebra 4 class hrs/wk 4 credits
The study of basic operations on algebraic, rational, and radical expressions. Solution of first and second degree equations and equations involving radicals. Algebraic and graphical solutions for inequalities, exponential and logarithmic functions. Stated problems and applications are studied throughout the course.
This course is recommended for students having high school algebra and geometry with above average grades or those with lower grades and more math in high school.
Prerequisite: Must demonstrate the knowledge of the stated objectives for Elements of Algebra course.

Mth 101 College Algebra 4 class hrs/wk 4 credits
Development of the real and complex number systems. Introduction to functions; graphs of relations and functions; linear, quadratic, exponential and logarithmic functions. Polynomials; theory of equations.
Prerequisite: Mth 100 and/or consent of instructor.

Mth 102 Trigonometry 4 class hrs/wk 4 credits
Introduction to circular functions; trigonometric functions; curve sketching; complex numbers; polar coordinates; matrices.
Prerequisite: Mth 101 and/or consent of instructor.

Mth 103 Probability & Statistics 4 class hrs/wk 4 credits
A general one term introductory course in probability and statistics. The objective is to acquaint the student with the concepts and language of the probability models and statistical inference.
Prerequisite: Mth 100.

Mth 110 Analytic Geometry 4 class hrs/wk 4 credits
Vectors; rectangular and polar coordinate systems, linear transformation, loci in two-and three-dimensional spaces. Analytic background essential for study of the calculus.
Prerequisite: Mth 101, 102.

Mth 121, 122, 123 Math for Elementary Teachers 3 class hrs/wk 3 credits
An introduction to mathematical language and logic; a major emphasis is on the properties of an ordered field and their relations to whole numbers, integers, rational and real numbers. Introduction to elementry plane geometry i.e. incidence, measurement, congruence and similarity. The student will be expected to write simple proofs for conjectures and compare mathematical systems.
Prerequisite: Elements of Algebra or equivalent and/or consent of instructor.

Mth 161, 162, 163 Mathematics for Non-Science Majors 4 class hrs/wk 4 credits
This course is designed to provide a mathematical foundation and computational skills for the non-science major. The course contains selected topics from the broad field of mathematics relevant to business and social science courses; with the usefulness of mathematical concepts stressed.
Prerequisite: Mth 100 and/or consent of instructor.

Mth 200, 201, 202, 203 Calculus 4 class hrs/wk 4 credits
Standard sequence for students in mathematics, science and engineering.
Mth 200: Functions and graphs, limits, continuity, differentiation, applications of differentiation, related rates and extrema, anti-differentiation.
Mth 201: The definite integral, fundamental theorem of calculus, applications of integration, differentiation and integration of transcendental and trigonometric functions.

Mth 202: Techniques of integration, approximate integration, vectors in the plane, hyperbolic functions, improper integrals, vectors and analytic geometry in three dimensional space.

Mth 203: The calculus of functions of several varibles, infinite series, Taylor's theorem, differentiation and integration of power series.

Prerequisite for Mth 200: Mth 110 or consent of the instructor. Terms must be taken in sequence.

Mth 233 Introduction to Numerical Computation
3 class hrs/wk 3 credits

Basic principles of computation; programming a computation; programming a computer in an algebraic language.

Prerequisite: Mth 100 or consent of the instructor.

4.145, 4.146, 4.147 Industrial Math I, II, III
5 class hrs/wk 4 credits

The purpose is to assist the student in developing mathematical skills necessary for problem solving associated with occupational careers.

4.145 An emphasis will be placed on integers, powers and roots, scientific notation, rational numbers, logarithms, and basic algebra necessary for problem solving. The algebra will also be used to solve typical occupational formulas and related applied problems.

4.146 Emphasis will be placed on Basic Algebra and Geometry such as: formulas, graphs, ratio and proportions, polynomials, factoring, algebraic expressions, Pythagorean theorem, area of circles and polygons, constructions, volume of basic geometrical shapes. The Algebra and Geometry will also be used to solve typical occupation formulas and related applied problems.

4.147 Emphasis will be placed on Coordinate Geometry and Trigonometry such as: distance formula, general formula of a circle, midpoint of line segment, slope of a line, solving pairs of linear equations algebraically, applied geometry problems, trigonometric ratios, right triangle applications, vectors, extensive use of tables and slide rule.

The Geometry and Trigonometry will be used to solve typical occupation formulas and related applied problems.

6.261, 6.262, 6.263 Technical Math I, II, III
4 class hrs/wk 4 credits

This course is designed to develop general mathematical and computational skills that assist technicians in their training and on their jobs. The emphasis is on problem solving.

6.261 Review basic algebra and geometry; a study of algebraic functions, systems of linear equations, quadratic equations, exponents and radicals, logarithms, and exponential function.

Emphasis on technical applications and problem solving.

6.262 Trigonometric functions and identities with applications, vectors, conditional equations, and complex numbers with applications.

6.263 Analytic Geometry, inituitive introduction to differential and integral calculus.

Emphasis placed on functions and applications to technical areas.

6.337 Slide Rule 3 class hrs/wk 1 credit

A basic course on the operation and use of the slide rule. Included are methods of placing the decimal point, multiplication and division, combined operations, squares and cubes of numbers, square root and cube root of numbers, and an introduction to the log and trig scales on the slide rule.

0.665 Study Skills Seminar 0 credits

The purpose of the seminar is to fulfill the objectives of the student which are developed in conjunction with the instructor. After the objectives and level of instruction are determined, a schedule is developed to provide optimum instruction and opportunity to practice and improve in the specific math area. The objectives and the programs to meet the objectives vary greatly which determines to a great extent the amount of time needed to correct a student's deficiency area.

0.668 Basic Mathematics 4 class hrs/wk 4 credits

The course is designed as a thorough review of the arithmetical processes and provides a basis for the study of algebra. Topics include fundamental operations with whole numbers, fractions, decimals, percentages and measurement.

ED 209 Practicum Teaching Mathematics
1-2 class hrs/wk 1-2 cr.

Observation and introductory experience in education. Writing behavioral objectives; conditions of learning; material selection and methods of presentation. Applications and evaluation of teaching methods through visitations of local schools and a personal TV presentation taped for self-evaluation procedures.

SCIENCE COURSE DESCRIPTIONS

Bi 101-3 General Biology 6 class hrs/wk 4 credits

Principles of life applied to plants, animals and protists. May not be taken for credit if a student has completed six or more hours in a college level course in a biological science.

For NON-MAJORS: Students may enter any term, however, it is best to take each term in sequence.

Bi 101: Ecosystem structure and cell biology.

Bi 102: Structure and functions of organ systems, homeostasis and behavior.

Bi 103: Dynamics of population and ecosystems.

Bi 211-3 Biology for Majors 7 class hrs/wk 5 credits

Bi 211: Cellular structure, organization and functions.

Bi 212: Genetics, comparative physiology and developmental biology.

Bi 213: Behavior, population, community and ecosystems dynamics, plant and animal evolution .

Prerequisites: Mth 100 and Ch 104 concurrently.

Bot 201-3 General Botany 6 class hrs/wk 4 credits

Bot 201: Anatomy, physiology, development and genetics of seed plants.

Bot 202: Survey of plant kingdom.

Bot 203: Identification of native plants, use of taxonomic keys, floral morphology.

4.201, 4.202, 4.203 Integrated Basic Science I, II, III 4-6 class hrs/wk 3-5 cr.

Sequence provides essential knowledge concerning anatomy, physiology, microbiology and physical science related to allied health programs. Fifty percent of the course content is devoted to anatomy and physiology and twenty-five percent each to microbiology and physical science. The sequence is team taught as a lecture-demonstration presentation.

NOTE: ADN program students take 6 class hrs/wk, 4 credits a term, for Fall, Winter and Spring term. Dental Assistant program students take 6 class hrs/wk 4 credits, the first term and 4 class hrs/wk, 3 credits the second term of the three term program.

4.211-2 Nutrition I, II 3 class hrs/wk 3 credits

4.211: Importance and role of fuel nutrients, viatmins, in body functioning. Food sources and planning for adequate nutrition. Requirement for and recommended allowance of the various nutrients.

4.212: Principles of modifications in diet to meet special needs of the body in disease.
Prerequisite: 4.211

4.205, 4.206 Basic Chemistry I, II 4 class hrs/wk 3 credits

An introductory sequence for vocational students or students needing preparation prior to entering Ch 104. Topics include inorganic and organic chemistry with practical laboratory experiments integrated with discussion material. No previous chemistry course work required.
Prerequisite: Concurrent enrollment in Mth 1.110, for 4.205 or consent of instructor.

4.230 Analytical Chemistry 7 class hrs/wk 3 credits

Practical course for vocational students. Topics include principles of gravimetric and volumetric analysis, redox titrations, electrochemical theory, conductometry, potentiometry and amperometry.
Prerequisite: 4.206 Basic Chemistry II.

Ch 101, 102, 103 General Chemistry 5 class hrs/wk 3 credits

Survey course of inorganic and organic chemistry. Designed as a service course for students not intending to major in science or engineering. This course will not transfer as a prerequisite for advanced chemistry courses and cannot be used as a sequence for science majors. High school chemistry is not required.
Prerequisite: Concurrent enrollment in Mth 100.

Ch 104-6 General Chemistry 7 class hrs/wk 5 credits

An general inorganic chemistry sequence providing an understanding of atomic structure and interactions of molecules and ions. Establishes foundations for further study of chemistry. Students transferring to Oregon State University will have to take Ch 107 in order to take advanced chemistry lab courses.
Prerequisite: High school chemistry desirable, Math 101, and Ch 104 concurrently.

Ch 107 General Chemistry Lab 6 class hrs/wk 2 credits

Laboratory work to complete the instruction given in Ch 104, 105, 106 and to prepare students for more advanced laboratory training in chemistry.
Prerequisite: Ch 106.

Ch 226-8 Organic Chemistry 3 class hrs/wk 3 credits

The chemistry of the carbon compounds: aliphatic, aromatic, heterocyclic and compounds of biochemical importance.
Prerequisite: Ch 106.

Ch 229 Organic Chemistry Lab 6 class hrs/wk 2 credits

A laboratory course taken concurrently with Ch 228.
Prerequisite: Ch 107.

4.300, 4.302 Practical Physics 5 class hrs/wk 4 credits

An introductory course in practical physics for vocational students. Laboratory time is provided for experiments to clarify the principles and procedures covered in class. Students are advised to complete Industrial Math I, or equivalent, as a prerequisite to the course. Mth 1.100 is also desirable. Offered on Pass/No Pass option.

4.300: Measurement, matter, mechanics, machines, heat.

4.302: Light, sound, magnetism, electricity, electronics, nuclear energy.

Prerequisite: 4.145 Industrial Math I or equivalent.

GS 104,6 Physical Science 5 class hrs/wk 4 credits

Survey course in physical science intended to provided a broad background in physical science for the liberal arts student and the non-science major. No previous science background is required. May not be taken for credit if the student has completed six or more hours in a college-level course in chemistry or physics. Students may enter any term.

GS 104: Fundamental principles of physics.

GS 105: Principles of Chemistry.

GS 106: Nuclear energy, astronomy and earth science.

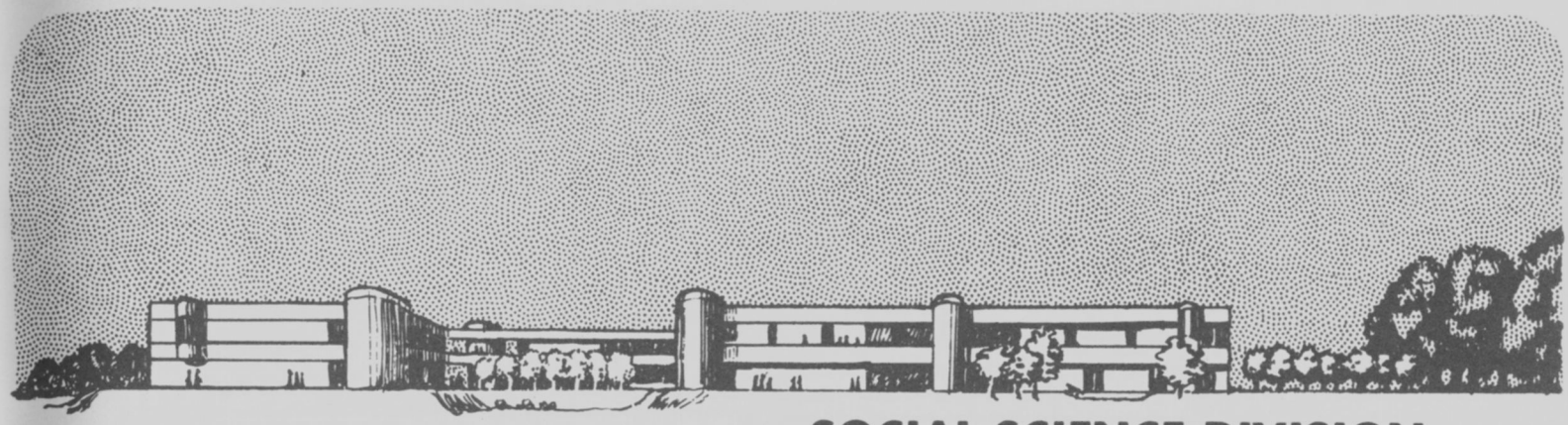
Prerequisite: 1.110 Elements of Algebra or equivalent.

Ph 201-3 General Physics 6 class hrs/wk 4 credits

First year college physics for science majors. The study of energy and physical phenomena, including the fundamental principles of mechanics, heat, sound, light, electricity, magnetism and a brief introduction to modern physics.
Prerequisite: Mth 100.

G 201,3 Geology 6 class hrs/wk 4 credits

Earth materials, processes and forms, formation of economic mineral deposits, the main events in the history of the earth.
Prerequisites: Mth 101, and Ch 104 concurrently or consent of instructor.



SOCIAL SCIENCE DIVISION

SOCIAL SCIENCE DIVISION

CHAIRMAN James K. Barnes
FACULTY: Russell Durham, Maribel Montgomery, Max Lieberman.

The general aim of the social science curricula is to help each student to develop to the best of his ability, efficient habits of reading, study and observation that can assist him in gaining accurate and extensive knowledge of himself and his social environment and to suggest ways of applying that knowledge in life situations that are encountered by a majority of people.

ANTHROPOLOGY

ANTH 101-3 General Anthropology
- ANTH 101: Examination of man's morphological variation and physical evolution. (Physcal Anthropology.)
- ANTH 102: Examination of man's prehistorical cultural traditions, i.e., those which have no living bearers. (Archeology.)
- ANTH 103: Examination of man's cultural variation throughout the historical world. (Cultural Anthropology.)

ANTH 207-9 Cultural Anthropology
- ANTH 207: Examination of man's cultural traditions at the band and tribal-chiefdom levels, including discussion of the major theoretical concepts of cultural anthropology that apply to this level of cultural evolution.
- ANTH 208: Examination of state level cultural traditions (industrial and preindustrial), with major theoretical concepts of cultural anthropology that apply to that level of cultural evolution as well as ethnographic examples.
- ANTH 209: Examination of the process of growth and diversification of culture; a look at culture change in its many aspects, i.e., evolutionary, adaptive (or acculturative), and applied (or directed) change.

Recommended for students planning to major in anthropology. Also may be used to fulfill general education requirement in social science. Transfer students should not complete both Anth 101, 102, 103 and Anth 207, 208, 209.

ECONOMICS

Econ 115 Outlines of Economics 3 class hrs/wk 3 credits
Outlines of Economics is a one term survey of elementary economics. It includes a study of the development of our economy and the economic problems we face. The problems are analyzed using modern economic theory in an historical context.

Econ *201-3 Principles of Economics 3 class hrs/wk 3 credits
- Econ 201: Introduction to Micro-Economics theory, policy, and institution. Includes principles underlying production, exchange and distribution.
- Econ 202: Introduction to Macro-Economics theory, policy and institution. Includes practical problems relating to monetary and banking policy, consumption, investment, unemployment and inflation.
- Econ 203: Introduction to international economics and economic development. Includes principles underlying international trade, trade regulations, exchange rates, economic development in both developing and developed parts of the world.

*Prerequisite: Sophomore standing.

GEOGRAPHY

Geog 105-7 Introductory Geography 3 class hrs/wk 3 credits
- Geog 105: An introductory analysis of the physical aspects of the geographic landscapes, with emphasis on the genesis and characteristic features of climate, vegetative, soil, and land form zones of the earth's surface and their areal associations.
- Geog 106: Survey of human occupants patterns of the world to aid in understanding spacial differences in people and environments.
- Geog 107: Survey of the location, characterisitics and relationships of world economic activities.

HISTORY

Hst 101-3 History of Western Civilization 3 class hrs/wk 3 credits
- Hst 101: Origins and development of Western Civilization from ancient times to the end of the Middle Ages. Emphasis is placed on the important influence of the Greeks and Romans to modern times.
- Hst 102: The Renaissance, with its primary emphasis on Man, the development of nations, and the French Revolution, all represent the beginnings and early development of modern times.
- Hst 103: The study of the political, economic, social, and religious institutions which have shaped the "modern man". Also, a study of the significant men and women who have influenced man's development.

Hst 201-3 History of the United States 3 class hrs/wk 3 credits
- Hst 201: An in-depth study of the exploration and colonization of the American colonies, the attainment of independence, the formation of government under the Constitution and subsequent events up to the presidency of Jackson.
- Hst 202: The history of the United States from the presidency of Jackson, through the Civil War and Radical Reconstruction, the conquering of the West, the ascendency of industry, the early labor movement, and the ultimate emergence of our nation as a world power.
- Hst 203: An analysis of the United States in the 20th Century encompassing the "War to end all War", The Roaring Twenties, The Great Depression, World War II, The Cold War, and the Viet Nam conflict.

POLITICAL SCIENCE

PS 201-3 American Governments 3 class hrs/wk 3 credits
- PS 201: A study of the principles of American constitutional system, political process, and organization of national government.
- PS 202: A study of the powers and functions of national government.
- PS 203: A study of the practical operation and contemporary reforms in government at state and local levels.

PS 205 International Relations 3 class hrs/wk 3 credits
Analysis of the nature of relations among states, with specific reference to contemporary international issues; a study of the motivating factors, including nationalism, economic rivalries, quest for security, etc; study of the problems of national sovereignty and its relation to international cooperation.

1.124 American Institutions 3 class hrs/wk 3 credits
A study of the effect of the American social, economic and political institutions upon the individual as a citizen. Topics considered are: culture, its functions and changes; social groups in relation to problems of urban living; the American economic system and the American political systems.

PSYCHOLOGY

ED 207 Leadership 2 class hrs/wk 2 credits
Interpretation of leadership, understanding of group processes; methods and skills involved in group guidance and organizational motivation.
Prerequisite: The holding of an actual leadership position.

ED 209 Leadership 1 class hrs/wk 1 credit
The participation in an actual experience involving the use of leadership techniques , skills or methods. Taken in conjunction with ED 207.

PSY 111 Personal Development 4 class hrs/wk 3 credits
Experience in interpersonal communication and group dynamics, with emphasis on the communication of feelings.

PSY 201-3 General Psychology 3 class hrs/wk 3 credits

PSY 201: In the first quarter of Introductory Psychology we'll focus on the scientific procedures employed in the study of behavior. We'll examine the human first in the perspective of a biological organism sharing many features in common with other animals. Consideration will then be given to specific methods devised by Psychologists to study animal behavior. Finally, we'll review the current knowledge about animal learning and motivation that's been gained through the use of these methods.

PSY 202: In the second quarter we'll emphasize the unique characteristics of the human as the most complex organism yet evolved on earth. We'll trace first some common patterns of human development paying particular attention to perception, and the linguistic and cognitive abilities. We'll then make a more detailed study of the senses and how environmental features are represented within the nervous system. Finally, we'll take up the complex information processing abilities of the human, noting the limitation of the nervous system and alterations of behavior that attend the use of drugs.

Prerequisite: Psychology 201.

PSY 203: In the third quarter we'll consider individual differences in behavior displayed within the human species and the special techniques necessary to study them. Since this area of Psychology is still largely in the theoretical stages of development, we'll examine and compare a variety of current theories of personality. We'll discuss the characteristics of individuals with behavior disorders and review the various kinds of therapy employed to help the disorganized person. Finally, we'll review studies of the interaction of humans in small groups.

Prerequisite: Psychology 202.

1.606 Introduction to Psychology and Human Relations
3 class hrs/wk 3 credits
The purpose of this one-term class is to help prepare students to solve potential work oriented individual and/or interpersonal behavioral problems. This will include study of fundamental psychological principles of development, personality, motivation, conflict, group behavior and occupational choice.

SOCIOLOGY

FL 222-3 Family Living 3 class hrs/wk 3 credits

FL 222: Study of the nature of courtship and marriage; role expectations and responsibilities. Additional goals of the course are toward more self-understanding and understanding of the opposite sex, and to develop competencies in establishing satisfactory interpersonal relationships. Topics covered include establishing a relationship, communication, conflict, self-understanding, love—its expression and dimensions, human sexuality, family finances, use of non-word time, divorce alternatives to marriage.

FL 223: Emphasis is placed on the relationships of the married couple and parenthood. Role conflict. Marital adjustments: social, psychological, sexual, economical. Crises of marriage. Resources to strengthen family life. Continued attention will be given to developing skills and competencies involved in interpersonal relationships.

SOC 204-6 General Sociology 3 class hrs/wk 3 credits

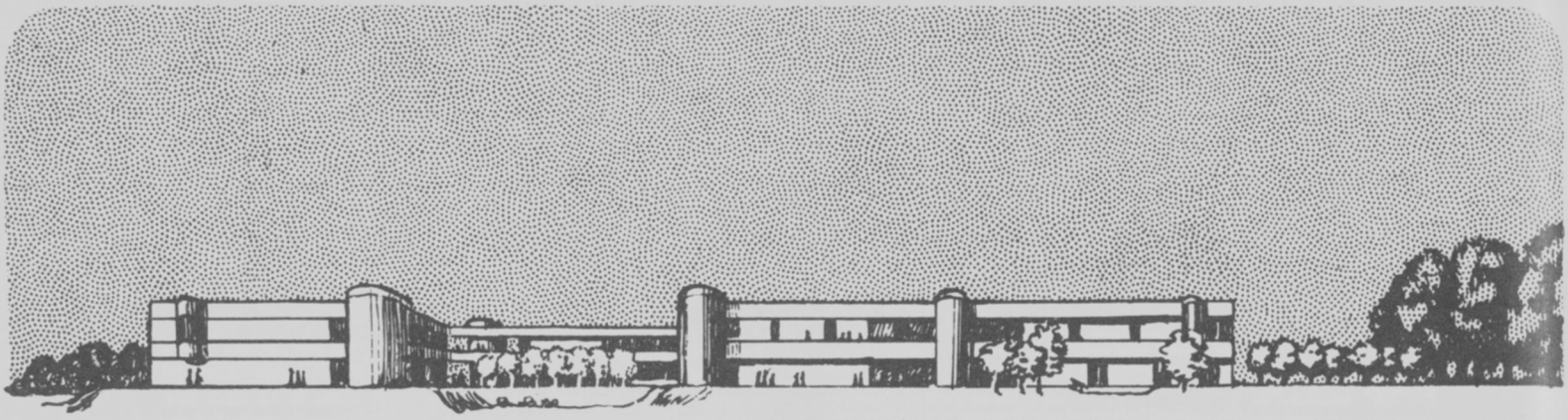
*SOC 204: Introduction to the sociological perspective: the components of society and social organization; culture; socialization; stratification.

*SOC 205: Analysis of major sociological institutions.

*SOC 206: Social issues and social movements: stresses application of basic concepts to the analysis of contemporary problems in group life.

*Should be taken in sequence.

*Offered as a mini-course during summer term. A full sequence of 9 credits would be covered in a 9-week period.



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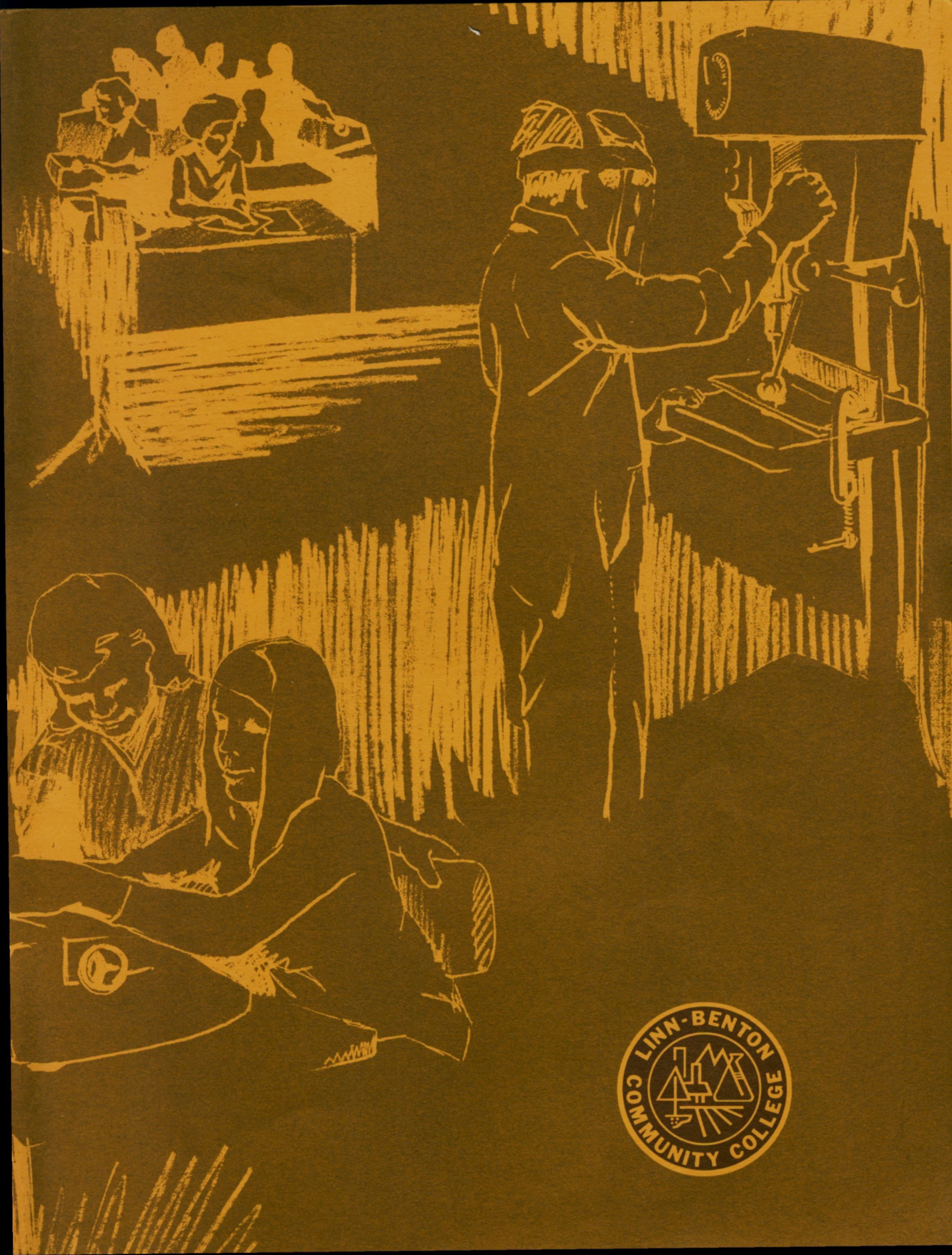
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