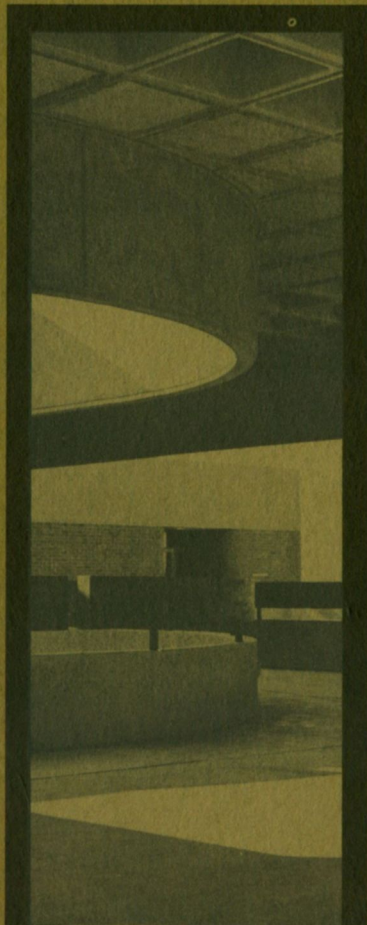
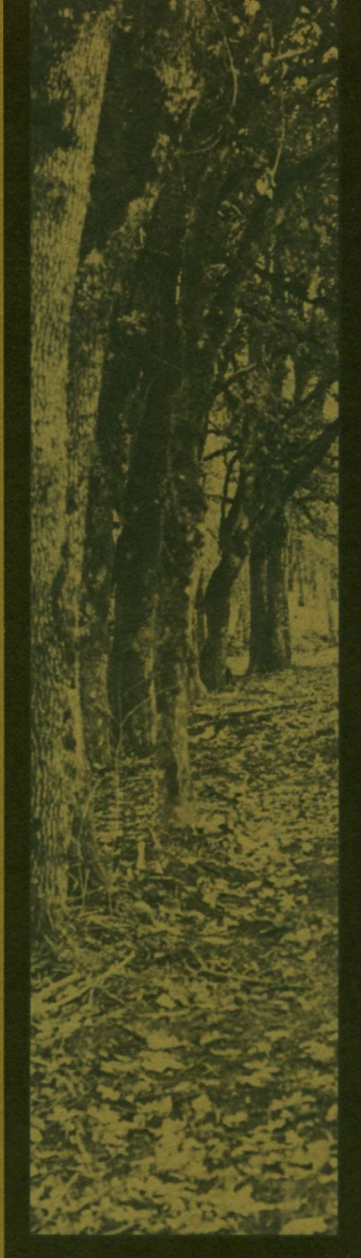


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Linn - Benton Community College

CATALOG 1973-74





Calendar

FALL TERM, 1973

Registration	July 16-Sept. 21
Classes Begin	Sept. 24
Last Day to Register Full Time	Sept. 28
Veteran's Day Holiday	Oct. 22
Thanksgiving Holiday	Nov. 22-25
Last Day to Drop With Automatic 'W'	Dec. 7
Final Exams	Dec. 10-12
Last Day of Fall Quarter	Dec. 14
Christmas Vacation	Dec. 17-Jan. 1

WINTER TERM, 1974

Registration	Nov. 26-Dec. 31
Classes Begin	Jan. 2
Community Education Classes Begin	Jan. 7
Last Day to Register Full Time	Jan. 4
Last Day to Drop With Automatic 'W'	March 8
Final Exams	March 11-13
Last Day of Winter Quarter	March 15
Spring Vacation	March 18-22

SPRING TERM, 1974

Registration	Feb. 25-March 22
Classes Begin	March 25
Last Day to Register Full Time	March 29
Memorial Day Holiday	May 27
Last Day to Drop With Automatic 'W'	May 31
Final Exams	June 3-5
Graduation	June 7
Last Day of Spring Quarter	June 7

SUMMER TERM, 1974

Registration	May 20-June 14
Classes Begin	June 17
Last Day to Register Full Time	June 21
Independence Day	July 4
Last Day to Drop With Automatic 'W'	August 16
Final Exams	August 19-21
Last Day of Summer Quarter	August 23

FALL TERM, 1974

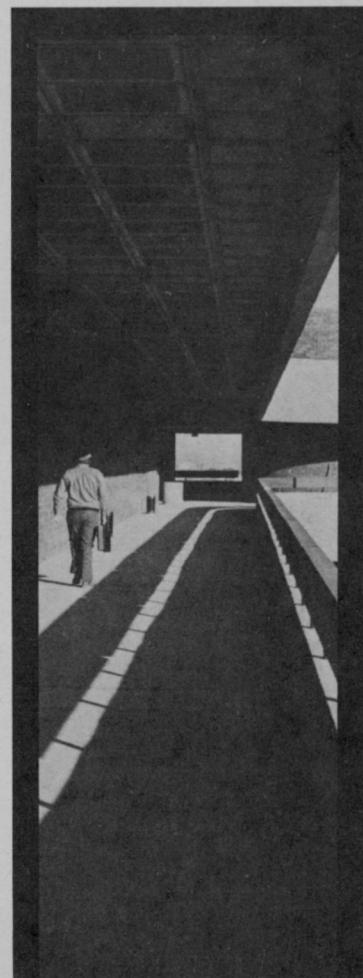
Registration	July 15-Sept. 20
Classes Begin	Sept. 23
Fall Quarter Ends	Dec. 13

Linn-Benton Community College

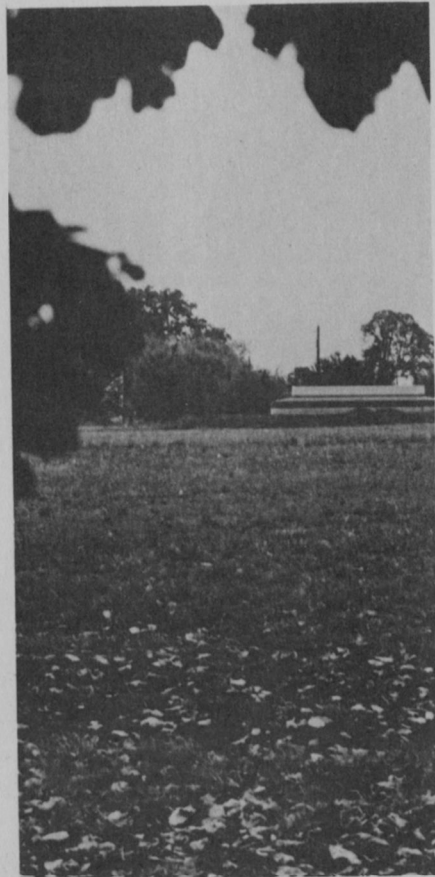
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Albany, Oregon 97321

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1973 - 74



History and Philosophy	3
Student Personnel Services	4
Admission Requirements	5
Registration Procedures	6
Academic Regulations	7
Guidance Services	9
Financial Aid	10
Student Activities	14
Learning Resource Center	16
Programs and Courses of Study	18
Introduction	19
Occupational and Technical Education Programs	19
Transfer Programs	19
Community Education	22
Apprenticeship	24
Master Schedule	26
Business Division	32
Humanities Division	44
Industrial Technology Division	52
Occupational Services Division	66
Physical Education and Health Division	78
Science-Mathematics Division	82
Social Science Division	86
Administration and Staff	90
Index	94



THE PHILOSOPHY & DEVELOPMENT OF THE COLLEGE

Linn-Benton Community College is a two-year public institution offering co-education instruction in occupational-technical, academic transfer and community education programs.

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. Occupancy of the ten-building campus has been completed during the 1972-73 school year.

ACCREDITATION

Linn-Benton Community College is accredited by the Northwest Association of Secondary and Higher Schools. Accreditation by this organization indicates that the college's programs are meeting standards and performance levels equal to other accredited institutions.

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.

Student Personnel Services



ADMISSION REGULATIONS

GENERAL POLICY

The only specific general entrance requirement is that applicants be beyond high school age (18 years). In addition, the College must have the completed application for admission and the high school transcript or GED. Applicants who have taken post-high school training at other institutions must file transcripts from all institutions. Non-graduates may be accepted as special students.

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. (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.

FULL-TIME (Matriculated) ADMISSION

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.

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

PLACEMENT TEST

Full-time (12 or more) credit students must complete the Comparative Guidance and Placement (CGP) test. See page 9 for test information.

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

PART-TIME ADMISSION

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 admission purposes.

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. 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 in the Admissions Office.

*See Special Admissions 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 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. Enrollment is on a space available basis.

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. Contact the Admissions Office for information.

FOREIGN STUDENT ADMISSION

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.

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. Transfer students may be accepted as "Special Students" while waiting to receive transcripts from prior collegiate enrollment.*

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 benefit from a program in the health occupations.

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

*See Special Admissions

Admission to Health Occupation Programs (cont.) ASSOCIATE DEGREE NURSING (RN Two Years) *

ADN applicants must: (1) have application and transcripts on file by May 1. (2) 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. (3) file a completed physical examination form. (4) have total application file be reviewed by the Admissions Committee. The Admissions Committee will review all past transcripts of high school or college enrollment. (5) be available for admission interview if recommended by the committee. ADN applicants will be notified of the disposition of their application by June 1. Individuals are required 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 should contact the Admissions Office.

DENTAL ASSISTANT (four quarters) *

Dental Assistant applicants must: (1) have application and transcripts on file by May 1. (2) complete all regular admission steps. (3) complete the General Aptitude Test Battery (GATB) through the local employment office and have test scores forwarded to the Admissions Office. (4) file a completed physical examination form with the Admissions Office. (5) 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 1.

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 should contact 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 should contact the Admissions Office.

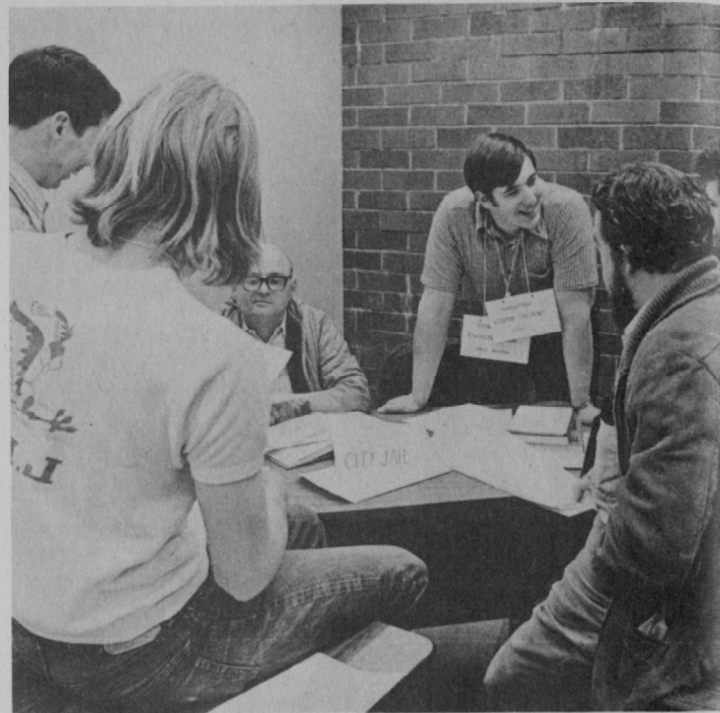
ADMISSION TO WASTEWATER TECHNOLOGY *

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 by May 1. (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 May 1 to be considered for fall classes.

*See General Policy page 5.



REGISTRATION PROCEDURES

CREDIT CLASSES

1. Complete all admission requirements (see page 5)
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. Contact the Financial Aids Office for assistance in tuition payment. Students sponsored by one of the special programs or attending under a grant or scholarship must process an authorization form 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.

COMMUNITY EDUCATION CLASSES

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

TUITION FEES

*TUITION SCHEDULE
(Service Fee Included -- See Below)

Credit Classes	District	Out-of-District	Out-of-State
Minimum Charge	16.00	16.00	36.00
Per Credit	8.00	14.00	36.00
*Maximum Charge	96.00	168.00	432.00

*Includes fees for 12 or more credits.

COMMUNITY EDUCATION CLASSES

Tuition for a 10 to 12 week class is \$16.00. However, additional fees may be charged as a laboratory fee for materials and supplies. Tuition for courses which are less or more than 30 hours is determined at the rate of \$.53 per class hour.

SPECIAL FEES & EXPENSES

Add fee per quarter--first add	No charge
All others (each transaction)	\$ 2.00
To drop one or more classes	No charge
Credit by Examination (per credit)	\$ 8.00
Student Medical Insurance, per year (available Fall quarter only)	*\$34.50
Late registration fee for students less than 8 credit hours, including . . . per day	\$ 1.00 non-credit
begins third week of classes	maximum \$10.00
Official copy of LBCC transcripts	\$ 1.00
Unofficial copy of LBCC transcripts	\$.25

*Rates shown applied to 1972-73 school year--subject to change for 1973-74 school year.

LBCC SERVICE FEE

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 Administration and the Board. A copy of the ACCF budget is available for review in the College Center 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 at the Registration counter.

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.

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 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 cost.

ACADEMIC REGULATIONS**OCCUPATIONAL-TECHNICAL & 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 two 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-transferable 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 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, the student may request credit by examination. This may be accomplished by: (1) enrolling in the class and presenting a request directly to the instructor, or (2) apply at the Guidance Center (without enrollment). The cost is \$8.00 per credit hour.

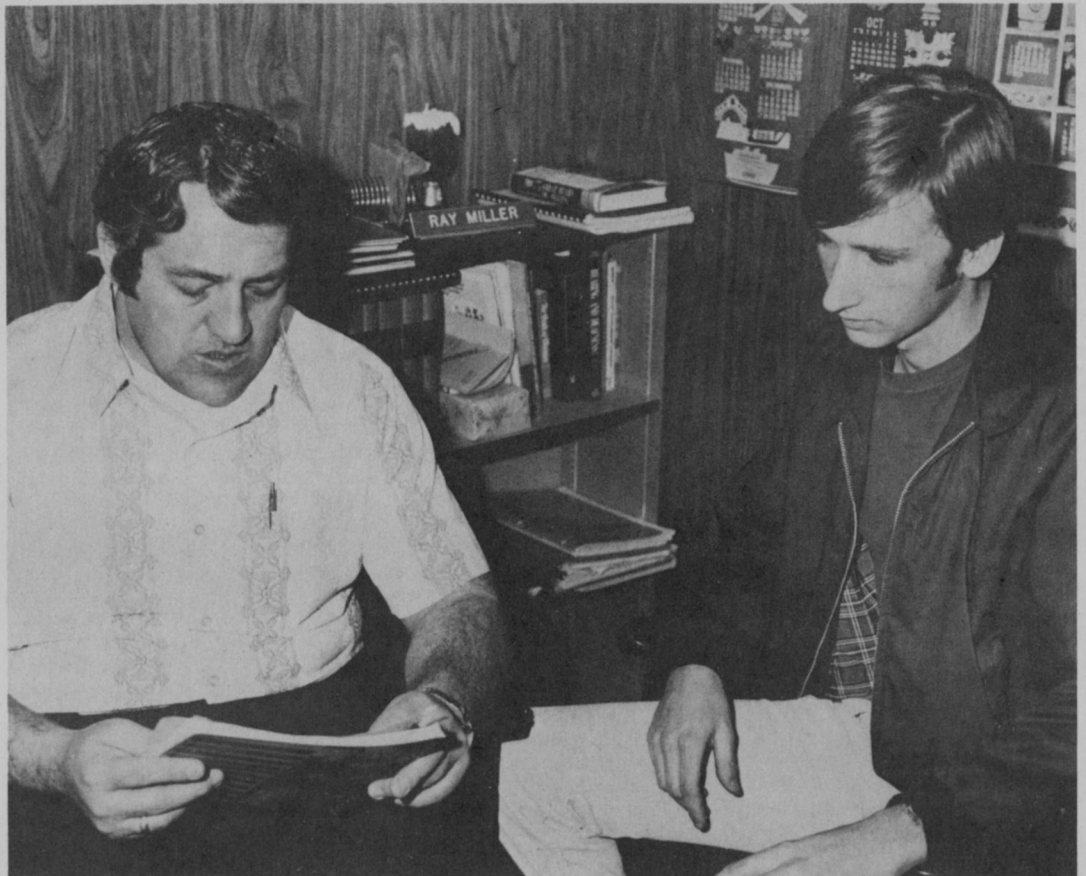
COLLEGE LEVEL EXAMINATION PROGRAM (CLEP)

LBCC is an approved 'Open Center' for administration of the CLEP Examination. In addition, LBCC now accepts CLEP scores for college credit which may be posted to an LBCC transcript. The examinations are administered through the Guidance Center at LBCC.

For information regarding specific amounts of credit and test scores required, contact the Admissions Office or Center. For testing information, contact the Center.

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. All examinations are subject to review and approval by the appropriate college division. 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 Point 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.

**The Admissions and Grade Standards Committee is studying a revision of the grading system for the 1973-74 school year. If changes in the Grading System are made before the beginning of Fall term 1973, these changes will be available in the Schedule of Classes published each term or through the Registrar's Office.

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.

TRANSCRIPTS & RECORDS

Student official transcripts may be secured through Records Office at a cost of \$1.00 each. Unofficial copies are available for \$.25 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 7

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.

The LBCC Counseling Center also administers the high school equivalency test (G.E.D.), college level examination program (C.L.E.P.). See 'Credit By Examination', and special tests designed to aid the counseling process.

TESTING

LBCC requires the Comparative Guidance and Placement Test (CGP) for all full-time students. This test battery is administered by the Counseling Center and costs the student \$4.50. The CGP takes between 3½ and 4 hours and the results are used for counseling and placement purposes. Call or visit the Counseling Center for further information including test dates.

HEALTH SERVICES

A Health Center staffed by a registered nurse, is located in the College 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 1972-73 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 contribute 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 1973-74

Entering freshman: file a State of Oregon Financial Aid Application for the 1973-74 academic year and a Parent Confidential Statement, following filing instructions on the application form.

Returning and transfer: students file a Parent Confidential Statement according to instructions on the form. An LBCC 'Returning Student' supplement must also be filed at the Financial Aids Office.

Students claiming status as independent students

file a Student Financial Statement instead of a Parent Confidential Statement.

Applications are available at the LBCC Financial Aids Service. High School seniors can obtain forms through their high school counselor.

Applications will be accepted when received. However, applications received by LBCC four or more weeks prior to the start of each term shall receive first priority for financial aid and entering fall-term-freshman should file application prior to March 1, 1973, for maximum consideration. Students should allow six weeks for College Scholarship Service to process a Parent or Student Confidential Statement.

IMPORTANT

When should you file your Parent Confidential Statement (P.C.S.) or Student Financial Statement (S.F.S.) for early consideration? Check the following chart:

Date to send PCS or SFS to College Scholarship Service	
Students Entering Summer Term 1973	On or before April 9, 1973
Students Entering Fall Term 1973	On or before August 13, 1973
Students Entering Winter Term 1974	On or before November 19, 1973
Students Entering Spring Term 1974	On or before February 11, 1974

WHAT DOES IT COST?

Individual costs may vary according to differences in course of study, transportation, housing, and many other factors. The college Financial Aids Service will attempt to assist students in meeting the difference between their resources and reasonable education-related costs. Listed below are some typical student budgets which provide for direct and indirect educational costs.

COLLEGE BUDGETS

	Living At Home	Away From Home
Tuition and Fees	\$ 288	\$ 288
Books & Supplies	150	150
Room & Board	600	1,200
Personal Expense	450	450
Transportation (Estimate)	500	500
	<u>\$1,988</u>	<u>\$2,588</u>

Although transportation costs may vary according to a student's place of residence, commuting cost can be estimated at \$180 per year plus 10 cents per mile for daily home-to-school car expense.

Students in some vocational programs will incur additional costs. These costs should be added to the student budget:

Freshman Automotive Technology	\$100 tools
Freshmen Autobody Repair	\$150 tools
Dental Assistant	\$100 uniforms & supplies
Freshmen Drafting Technology	\$ 50 supplies
Freshmen Associate Degree Nursing	\$150 books & uniforms
	\$150 mileage
Sophomore Associate Degree Nursing	\$300 mileage





COLLEGE WORK STUDY

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 from \$1.75 to \$2.00 per hour and some jobs may pay more to returning students. Whenever possible, students are placed in jobs compatible with their career goals. Work-Study employees must complete a minimum of 12 credits each term and remain in good academic standing.

EDUCATIONAL OPPORTUNITY GRANTS

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 fifty percent of a student's total financial aid award.

NATIONAL DIRECT 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 Peace Corps or Vista). Interest of three percent 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.

Teachers of handicapped children and teachers in certain low-income schools may have the total loan cancelled for every year of service not to exceed fifty percent of the loan.

GUARANTEED STUDENT LOANS

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 seven percent. 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 (Parent or Student Confidential Statement) is 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 educational expenses are reasonable;
- (c) the amount and types of financial aid and income the student receives from other sources.

EMERGENCY LOANS

Short-term emergency loans of up to \$65.00 are available to any full-time student who has been in attendance at LBCC four or more weeks. Loans will be approved for any reasonable education-related costs except tuition. Loans are normally repayable within five weeks of issue date. 10% simple annual interest is charged (54 cents per month on \$65.00). Emergency loans may be denied to students who have failed to pay previous emergency loans or deferred payments on due dates.

Applications for loans can be obtained at the Financial Aids Office. Emergency loan checks are normally ready the day following receipt of the student application.

Loans are repaid at the college Business Office.



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

Students enrolled full-time or accepted for enrollment in the LBCC Associate Degree Nursing program may apply for this cash award. Nursing grant awards are provided to students with exceptional financial need.

NURSING LOANS

Students with financial need who are full-time or accepted for enrollment in the LBCC Associate Degree in Nursing program may apply for Nursing Loans re-

payable commencing 9 months after the student leaves school. A borrower who later becomes employed or a full-time nurse can have up to 50% of the loan obligation cancelled. Contact the Financial Aids Service for details.

STATE GRANTS

The Oregon State Scholarship Commission provides tuition grants of 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.

NEED GRANTS: These cash awards may not exceed \$500 per year, and are normally renewable for up to four years if the student remains in good standing.

COMMUNITY COLLEGE GRANTS: These grants cover the full-cost of tuition for indistrict students (\$96.00 per term). Out-of-district student awards may not exceed \$100 per term.

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 4 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 LOANS

Entering and returning *full-time* students may apply at the Financial Aids Office to have up to two-thirds of their tuition deferred. Under the deferred tuition plan students who are temporarily unable to pay the full amount of their tuition can pay one-third down at the time of registration, with the balance payable before the end of the fifth week of the school term. 10% simple annual interest (50 cents per month on \$60.00) is charged borrowers.

BANKAMERICARD AND MASTER CHARGE CARDS

These two credit card charge plans may be used to charge tuition and fees or purchase books and supplies and other merchandise in the college bookstore. All transactions are made in accordance with the terms and limitations of the credit card plans.

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 or before the time of initial registration.

PART-TIME EMPLOYMENT

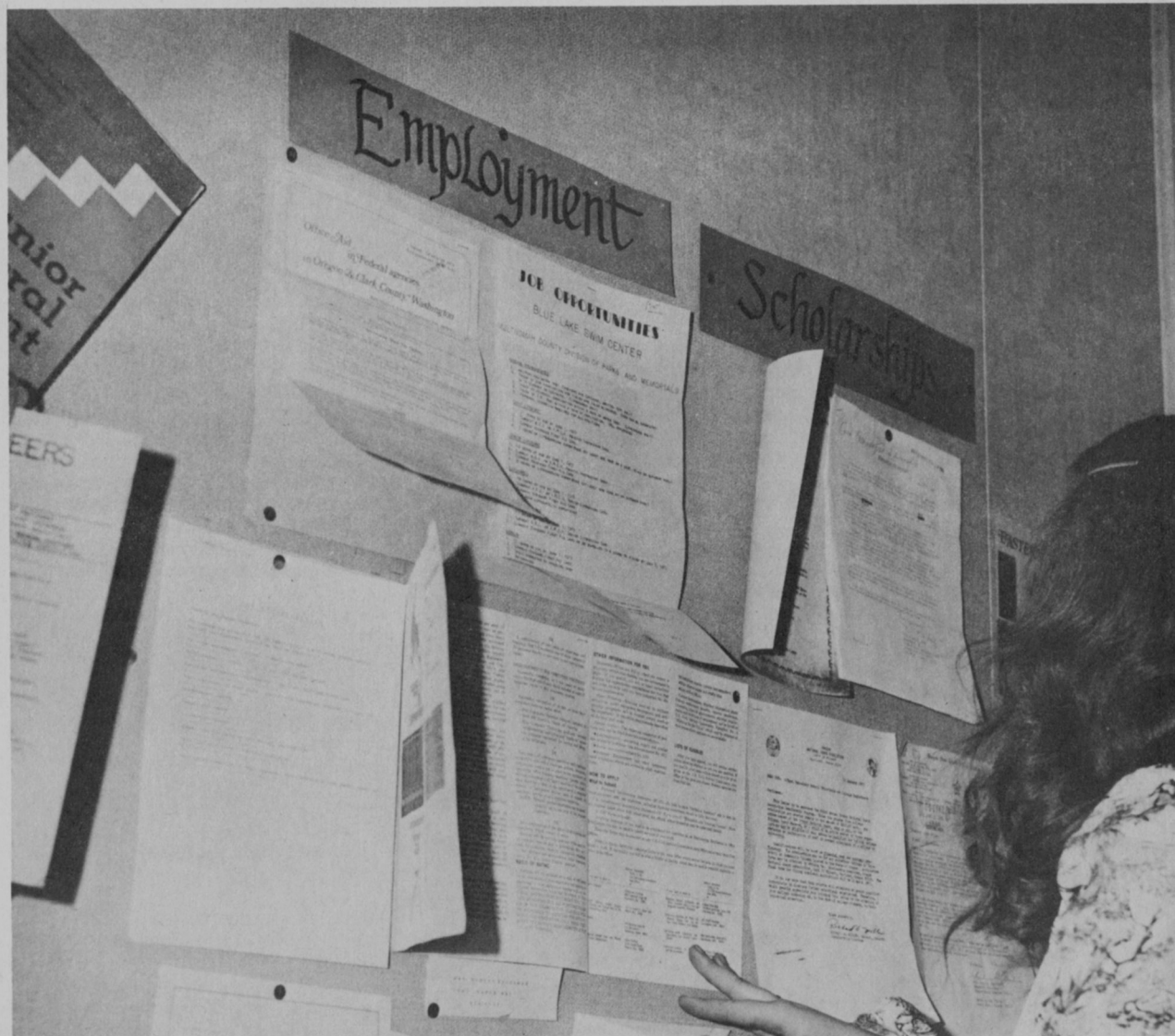
The LBCC Placement Service will assist students seeking part-time and summer employment. Students who have made application for work are referred to job listings obtained from local employers.

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, symposiums, and special seminars, etc.

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.

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.

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 College Center Office.

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 College Center Office.

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, volleyball, slow-pitch softball, rodeo and handball. Individuals interested in participation in present sport clubs or in the establishment of new sports clubs should inquire at the College Center Office.

INTERCOLLEGIATE ATHLETICS

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

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, housing listings, Frelock lockers and a fireside lounge. The College Center is open from 7:30 a.m. until 10:00 p.m. Monday through Friday.

FOOD SERVICE

Located on the second level of the College Center the food service provides a variety of menu offerings for members of the college and the community. In addition to its normal operation the food service also periodically caters within the facilities for special activities sponsored by college or community organizations. The normal hours of operation are from 7:30 a.m. until 4:30 p.m. Monday through Friday with the hours being extended for special occasions. Profits, if any, derived from the food service are transferred into the Activities and Co-Curricular Fund to further support 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 College Center Office) 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 the College Center and is open from 7:45 a.m. to 5:00 p.m. Monday through Friday unless otherwise posted.

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 Dean of Students Office.

DEGREES, DIPLOMAS, CERTIFICATES, GRADUATION REQUIREMENTS

LBCC offers the Associate in Science, Associate in Arts and 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.

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.

Associate in General Studies: This degree is awarded to students who complete the requirements outlined below.

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. Earn at least 24 credits at LBCC and be enrolled during the term degree requirements are completed.
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.
 - c. A credit course in Health or First Aid.
 - **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.

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 (WR111 plus WR112 or WR113).
 - *b. Physical Education activity courses, (3 credits recommended, but need only meet requirements of transfer college of choice).
 - c. A credit course in Health.
 - **d. A minimum of 9 credits in each of two areas: Humanities, Social Science, Science and Math; plus another 18 credits from among these three areas.
3. Earn at least 24 credits at LBCC and be enrolled during the term degree requirements are completed.

*See Waivers 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.

REQUIREMENTS FOR ASSOCIATE IN GENERAL STUDIES DEGREE (AGS)

1. Complete a minimum of 90 credit hours of vocational or college transfer courses with a cumulative grade point average of not less than 2.00.
2. Include in the program the following:
 - a. 6 credit hours of English
 - b. 2 credit hours of Health.
 - c. 3 credit hours of Physical Education.**
 - d. 2 or 3 credit hours of Group Relations.
 - e. *9 credit hours of Humanities.
 - f. *9 credit hours of Social Science.
 - g. *9 credit hours of Math and/or Science.
3. Earn at least 24 credits at LBCC and be enrolled during the term degree requirements are completed.
4. Complete the above requirements plus courses of your choice to total 90 credits.

*A minimum of 9 credit hours in each of these areas, plus 9 more credits in either one of the Humanities, Social Sciences, Math, or Science.

**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 assistance, welding, dental assistance 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

Students may complete the 'Adult High School Diploma' through LBCC. The diploma should not be confused with the GED examination.

GED EXAMINATION

LBCC offers the GED high school certificate examination through the Guidance 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. All P.E. requirements will be waived for veterans with two or more years of service.

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 organized to provide the best materials and services to support and supplement the educational programs of the college. Materials of a general or recreational nature are included to provide a balanced collection which can inform, stimulate, and challenge the mind.

The Learning Resource Center is a two-story facility which houses the Library, Media Services, Study Skills Center, Mathematics Lab, and Graphics Services.

LIBRARY

The library maintains a balanced collection which has grown to approximately 20,000 volumes and subscribes to over 375 periodicals and newspapers. The materials and services available help make the library a total information center serving the college and the community. The library provides a basic reference collection, general index materials, and the latest books in the liberal arts, technical, and vocational fields.

As a center for many types of instructional materials, the library includes numerous pamphlets, vocational guidance materials, maps and charts, directories, and college catalogs in its collection.

Selected copies of periodicals and newspapers are stored on microfilm. Microfilm readers are available, as well as a reader-printer from which copies may be obtained. A coin-operated photo-copy machine is located in the library for making copies from books and periodicals.

Materials which are not available through Linn-Benton's library or other local sources may often be obtained through inter-library loan from the Oregon State Library, Pacific Northwest Bibliographic Center, or other libraries within the state of Oregon.

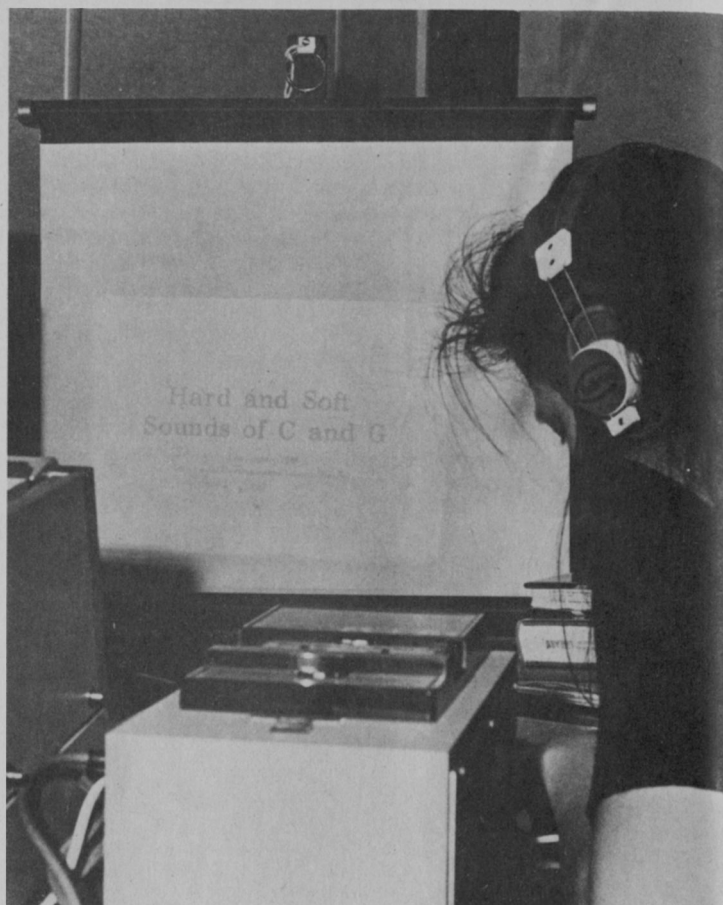
The new library is an air-conditioned, carpeted facility which provides seating for approximately 130 students at tables and individual study carrels. Additional students are accommodated in lounge areas and adjacent to the periodical section.

Students may receive instruction in library skills from the college librarians or in conjunction with several English classes. At all times, librarians are available to assist students in locating information and materials and in using all the services of the library.

MEDIA SERVICES

The operations of the Media Services department cover three areas: acquisition, maintenance, scheduling, and distribution of audio-visual materials and equipment; local production of audio and video tapes and other media; and operation of several learning laboratory facilities.

Equipment which is available for instructional use includes slide, film loop, film strip, over-head, and movie projectors; record players and tape recorders; still and movie cameras; and television cameras, recorders, and monitors. Individual listening and viewing stations are available in the Learning Resource Center and several other locations on campus. Television facilities include closed circuit television to a number of classrooms plus mobile equipment which can be used in nearly all campus locations.



An audio-visual materials collection containing many forms of media is maintained to provide basic and supplementary instruction in many college programs. Most audio-visual materials are catalogued and included in the library card catalog. In conjunction with the Graphics Services department, facilities are available for producing films, slides, overhead transparencies, audio and video tapes, charts, and other media.

MATHEMATICS LAB

The mathematics lab is designed to provide a flexible and accessible source of mathematics instruction for all Linn-Benton students. The facility is operated in conjunction with the Science and Mathematics division and is used for individual study as well as being an integral part of many of the regularly offered mathematics courses. Mathematics instructors schedule hours in the lab to help guide students in their studies.

Included in the resources available are cassette mathematics tapes, video tapes, calculators, programmed materials, and teaching machines. These materials are organized so that a student can informally take an entire math course in the mathematics lab. In addition, the student can take 'mini-courses' in such areas as slide rule use, solving verbal problems, and many others.

GRAPHICS SERVICES

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

STUDY SKILLS CENTER

The Study Skills Center offers a program of classes and individualized instruction designed to help assure successful achievement in college courses through the improvement of reading, writing, listening, and study techniques. The college places special emphasis on the learning of basic skills. The counseling staff and many faculty members refer students to the Study Skills Center when there is an indication of problems or deficiencies in the various skills areas.

Students whose class performance or diagnostic tests indicate a need for assistance in these areas will find the opportunity for improvement in the Study Skills Center.

0.663 Study Skills Seminar in Language Arts
0 cr. Sm/F/W/Sp

This course provides individualized instruction in English fundamentals, writing, spelling improvement, and vocabulary development. The available instruction varies from remedial and developmental to supplemental to established courses. Diagnosis, placement, and flexible scheduling are utilized to maximize effectiveness of learning.

0.664 Study Skills Seminar in Reading
0 cr. Sm/F/W/Sp

This course provides individualized instruction in most reading skills, and in addition, study techniques and listening skills. The instruction offered in primarily remedial or developmental or supplemental to other

courses. Diagnosis of deficiencies and interests of the student are used to determine placement.

0.656 Developmental Reading
3 class hrs/wk 3 cr. Sm/F/W/Sp

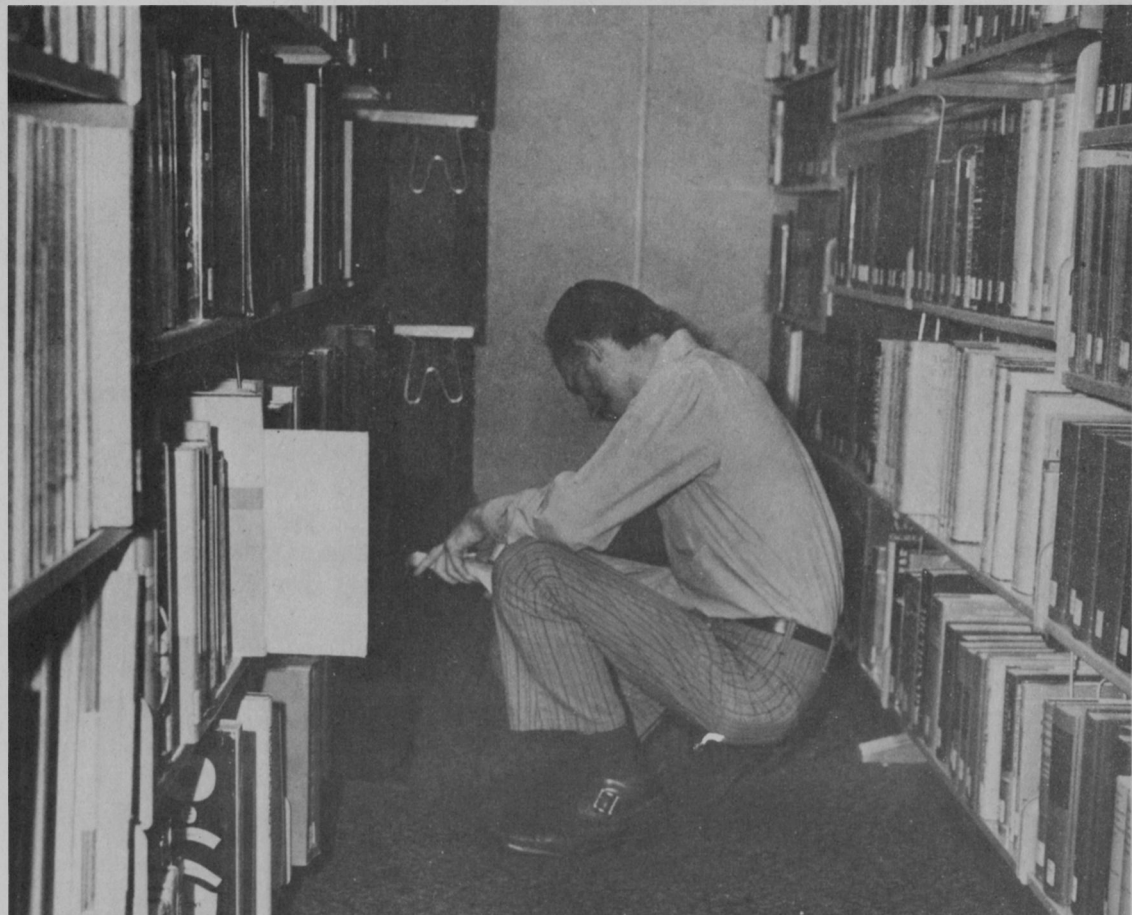
A study of the many skills of reading which are necessary in preparing the student to meet the reading requirements placed upon him. The course is designed to meet the individual needs of the student in reading comprehension, reading rate, and vocabulary development. Many other reading skills are presented as group activities. The course may be taken three times for non-transfer credit.

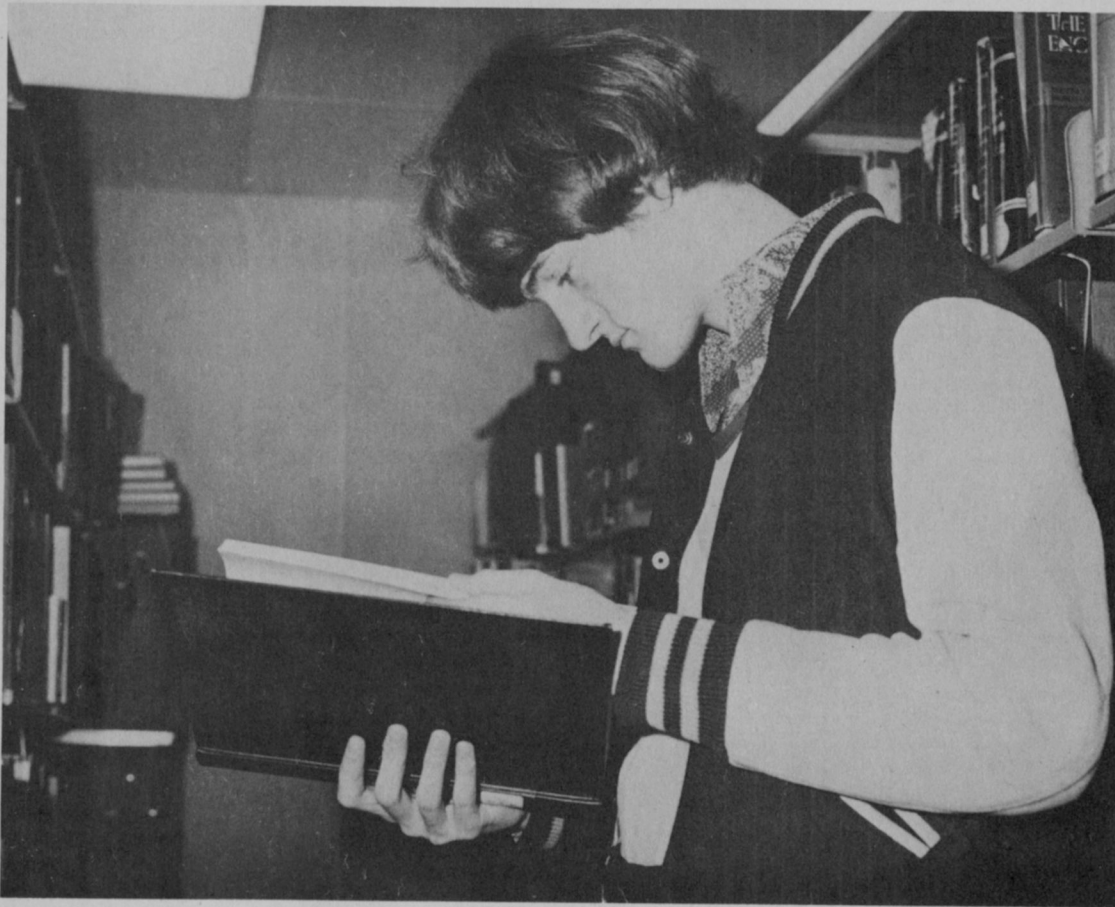
1.150 Techniques of Reading and Studying
3 class hrs/wk 3 cr.

This course provides the student the opportunity to learn many of the study skills and reading skills necessary for him to meet his academic requirements. The study techniques are basic to all students but the emphasis is placed on the needs of the class. The reading skills of comprehension, rate, and vocabulary development are individualized to meet the needs of each student.

Eng 115 Effective Reading
3 class hrs/wk 3 cr.

This course is for the average reader who wishes to improve his study skills and increase his reading efficiency with regard to speed, comprehension, and vocabulary.





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.

**TRANSFER PROGRAM AT LINN-BENTON
COMMUNITY COLLEGE**

Many students are interested in building a broad base of knowledge and working toward a baccalaureate degree. For these students, Linn-Benton Community College offers a wide choice of general studies and liberal arts courses with credits transferable to four-year institutions.

All transfer courses in Oregon community colleges are, by law, approved by the Oregon Board of Education and all instructors in such courses are also approved.

A manual titled *Transfer Curricula*, published by the Oregon State System of Higher Education, lists all transfer program requirements. This manual is available through every LBCC counselor, in the LBCC library, and in the offices of many high school counselors.

Each student is responsible for familiarizing himself with the requirements of the program in the institution to which he plans to transfer. You should discuss your transfer plans with your counselor to make sure you build the required coursework program at LBCC. You should also contact the four-year school to which you plan to transfer, for approval of your plans.

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 of 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).

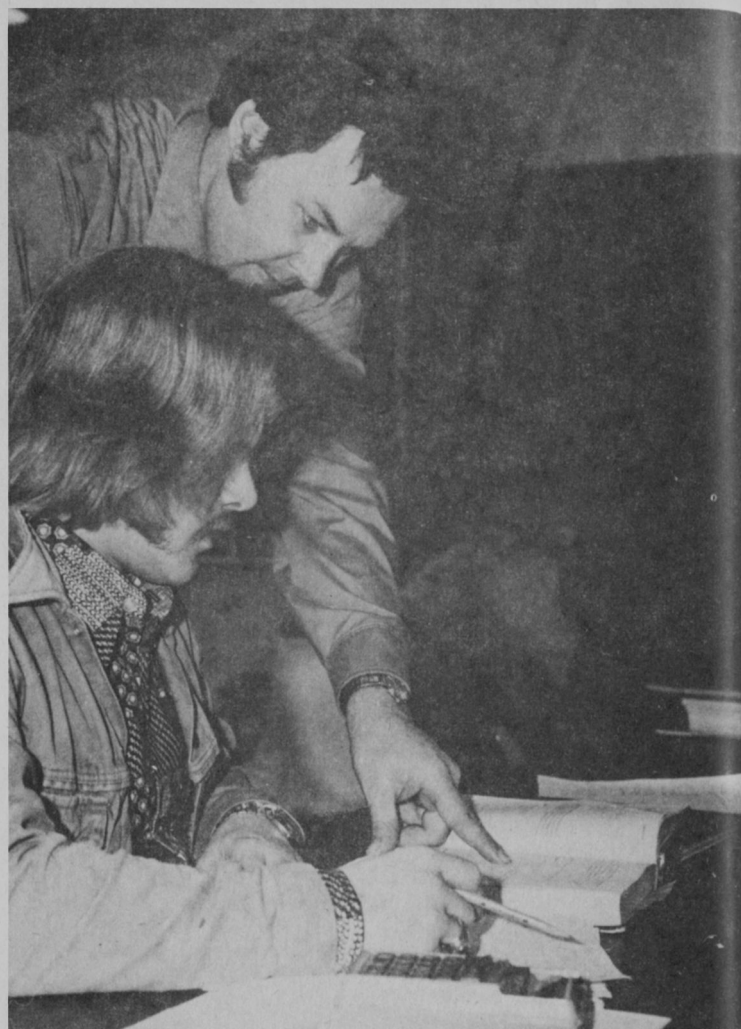
**OCCUPATIONAL & TECHNICAL
EDUCATIONAL PROGRAMS**

The various and constantly expanding curriculums of the Occupational and Technical Programs represent organized experiences designed to prepare the student for effective employment of 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.

PROGRAM	TRANSFER- ABLE TO:	YEARS AT LBCC
Agriculture	O.S.U.	2
American Studies	O.S.U.	2
Anthropology	U. of O. O.S.U. P.S.U.	2
Applied Science	P.S.U.	1 or 2
Architecture and Interior Architecture	U. of O.	1
Art	U. of O. O.S.U. P.S.U. E.O.C. S.O.C.	1
Applied Design	S.O.C.	2
Art Education	P.S.U. O.S.U. U. of O. S.O.C. O.C.E. E.O.C.	2
Art History	U. of O.	2
Atmospheric Science	O.S.U.	2
Biology	U. of O. P.S.U. E.O.C. S.O.C.	2
Botany, Entomology, Microbiology, Zoology, Biology (General Science)	O.S.U.	2

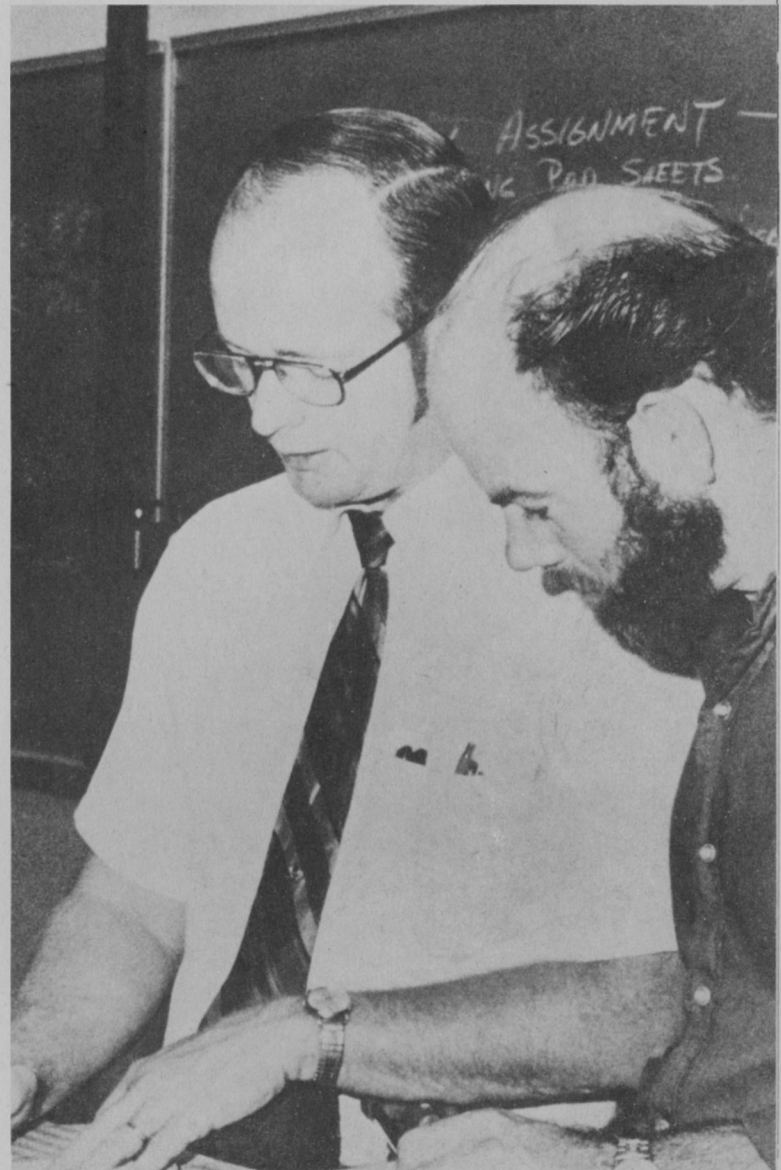
PROGRAM	TRANSFER- ABLE TO:	YEARS AT LBCC
Business Administration	U. of O. O.S.U. P.S.U. S.O.C.	2
Business Education	U. of O. O.S.U. P.S.U. S.O.C. E.O.C.	2
General Studies-Business	E.O.C.	2
Chemistry	U. of O. O.S.U. P.S.U. S.O.C. E.O.C.	1
Community Service and Public Affairs	U. of O.	2
Computer Science	U. of O. O.S.U. P.S.U.	2
Dentistry (Preprofessional Program)	P.S.U. O.S.U. U. of O.	1
Economics	U. of O. O.S.U. P.S.U. S.O.C.	2
Education (Elementary)	O.S.U. U. of O. P.S.U. E.O.C. S.O.C. O.C.E.	2
Education (Secondary)	O.S.U. U. of O. P.S.U. E.O.C. O.C.E. S.O.C.	2
Engineering	O.S.U.	1 or 2
English	U. of O. O.S.U. P.S.U. E.O.C. S.O.C. O.C.E.	2
Forestry	O.S.U.	1
General Arts and Letters	U. of O.	2
General Studies in Arts and Letters	P.S.U.	
General Studies in Humanities	E.O.C. O.C.E. O.S.U. S.O.C.	2



PROGRAM	TRANSFER- ABLE TO:	YEARS AT LBCC
General Science	U. of O. O.S.U.	2
General Studies in Science	P.S.U. E.O.C. O.C.E. S.O.C.	2
General Social Science	E.O.C. O.C.E. O.S.U. P.S.U. S.O.C. U. of O.	2
Geography	U. of O. P.S.U. O.S.U.	2
Geology	U. of O. O.S.U. P.S.U.	1
History	U. of O. O.S.U. P.S.U. E.O.C. S.O.C.	2

PROGRAM	TRANSFER- ABLE TO:	YEARS AT LBCC
Home Economics	O.S.U.	1
Journalism	U. of O.	2
Landscape Architecture	U. of O.	1
Law (Preprofessional Program)	U. of O.	2
Law Enforcement	P.S.U. S.O.C. O.C.E.	2
Mathematics	U. of O. O.S.U. P.S.U. S.O.C. E.O.C.	2
Medical Technology (Preprofessional Program)	U. of O. O.S.U. P.S.U. S.O.C. O.C.E. E.O.C.	1
Medicine (Preprofessional Program)	P.S.U. O.S.U. U. of O.	1
Music	U. of O. O.S.U. P.S.U. S.O.C.	1
Office Administration	O.S.U.	2
Pharmacy (Preprofessional Program)	O.S.U.	1
Philosophy	U. of O. O.S.U. P.S.U.	2
Physical Education	U. of O. O.S.U. O.C.E. S.O.C. E.O.C. P.S.U.	1 or 2
Physics	O.S.U. U. of O. P.S.U. S.O.C.	1 or 2
Political Science	O.S.U. U. of O. P.S.U. S.O.C.	2
Psychology	U. of O. O.S.U. P.S.U. S.O.C.	2
Religious Studies	U. of O. O.S.U.	1

PROGRAM	TRANSFER- ABLE TO:	YEARS AT LBCC
Sociology	U. of O. O.S.U. P.S.U. S.O.C.	2
Speech	U. of O. O.S.U. P.S.U. S.O.C.	2
Theater	U. of O. O.S.U. P.S.U. S.O.C.	1
Veterinary Medicine	U. of O. O.S.U. P.S.U. S.O.C. O.C.E. E.O.C.	1



COMMUNITY EDUCATION

The Community Education Division provides a wide variety of educational, cultural and recreational programs 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 fulfill these needs.

DESCRIPTION

The Community Education Division operates on campus and throughout west Linn County providing services and activities characterized by the following whenever the need is established and facilities and qualified instructor is available.

CREDIT CLASSES

Selected courses from a wide variety of areas designed to aid the student in attaining a higher degree of self-development and to assist him in meeting his educational goals. Courses may serve as complimentary parts of Associate Degree or Certificate Programs and may be either required or electives applicable to completion of curriculum requirements.

NON-CREDIT CLASSES

Generally recreational or hobby in nature and not applicable to degree requirements.

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 GENERAL EDUCATION

Linn-Benton Community College has several programs designed to meet the needs of persons over sixteen years of age who have not finished high school.

ADULT BASIC EDUCATION

To provide for students sixteen years of age or older who have never had the opportunity to complete their education through the eighth grade, LBCC offers free classes in Adult Basic Education. These classes are designed to give individualized instruction in the basic skills of reading, writing, English, vocabulary, spelling and mathematics. Free classes are held in many locations throughout the college district and are available both during the daytime and in the evenings. A student can enroll at any time.

GENERAL EDUCATION DEVELOPMENT CLASSES

GED Test Preparation classes are offered free to the student who has not completed high school and who desires to prepare for the high school equivalency exams (English Expression, Mathematics, Reading and Comprehension of Literature, Social Studies, and Natural Sciences). The classes consist of individualized instruction offered in many locations throughout the district and are held both during the day and at night. A student may start at any time.





ADULT HIGH SCHOOL DIPLOMA

In cooperation with local high schools, LBCC has two programs for the student who wishes to obtain his high school diploma. 1) High School Completion—Students under the age of eighteen can obtain a diploma by attending classes at LBCC with the permission and approval of their local high school. The high school will evaluate the student's educational records and determine which courses the students must take to meet the school district's graduation requirements. The diploma will be issued by the local school district. 2) Adult High School Diploma--The primary purpose of this program is to assist those individuals eighteen years of age or older in completion of nineteen credits required in Oregon of all high school graduates. Students under age 18 must have written approval from the high school district in which they reside in order to enter the program. The Counseling Center will evaluate the student's educational records and experience and will assist the student in planning a study program that will meet the student's needs. The Student may obtain concurrent high school-community college credits for classes successfully completed in this program. The diploma will be awarded by either the college or the high school as determined at the time of admission.

Call the two Centers or the Community Education office on campus for further information and class locations.

IN-SERVICE

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

FIELD STUDIES

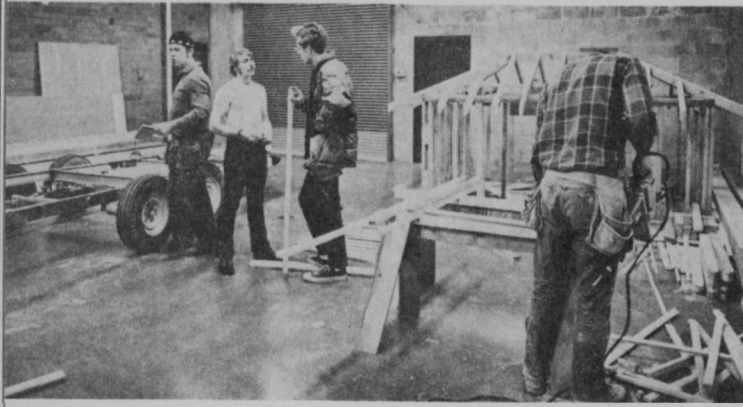
Instructional tours are conducted in response to the interests and concerns of the community.

COMMUNITY SERVICES

In cooperation with various college activity areas, Community Service will attempt to meet the cultural, social and recreational needs of the community. Programs will be both formal and informal in nature and flexible and vibrant in their development and presentation.

VOCATIONAL TRAINING for the DISADVANTAGED and 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

COORDINATOR:
Judith Green

Apprenticeship, as a form of education, has been in existence for over 4,000 years. In the code of Hammurabi there is evidence of the legal regulation of apprentices. Today, 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 training in the classroom. Classes are currently being offered at Linn-Benton Community College for the following crafts and trades:

- Carpenter
- Inside Wireman
- Industrial Maintenance Mechanic
- Industrial Millwright
- Industrial Pipefitter
- Industrial Welder
- 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 training program, the apprentice is moved to journeyman status, and is eligible to take a licensing examination if required. Linn-Benton Community College also offers the journeyman an opportunity for an Associate of Science Degree in Crafts and Industrial Trades. This degree is available only to journeyman (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 the Crafts and Industrial Trades 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-Science Division, Supervisory Training Department, or Apprenticeship.

- 9.060** **Carpenter Apprenticeship**
144 contact hrs. 9 cr/yr.
This is an eight-term related training class which covers the national training program for apprentice carpenters. Prerequisite: Registered carpenter apprentice.
- 9.077** **Power Lineman Apprenticeship**
9 cr/yr.
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 class hrs/wk 6 cr.
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 class hrs/wk 6 cr.
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 class hrs/wk 6 cr.
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 class hrs/wk 6 cr.
The theory of operation and the proper use 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 class hrs/wk 6 cr.
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 class hrs/wk 6 cr.
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 class hrs/wk 6 cr.
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 class hrs/wk 6 cr.
Applying knowledge of basic electronic circuits acquired in Industrial Electronics I to more complex circuitry—basically as related to motor control.

9.091 Industrial Electronics III
6 class hrs/wk 6 cr.

Continuation and application of knowledge acquired in Industrial Electronics I and II to 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 class hrs/wk 6 cr.

Comprehensive study of the National Electric Code including definitions, wiring design and protection, wiring methods and materials.

9.093 Industrial Electrical Code II
6 class hrs/wk 6 cr.

Comprehensive study of the National Electric Code including equipment for general use and special occupancies.

9.094 Industrial Electrical Code III
6 class hrs/wk 6 cr.

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 class hrs/wk 3 cr.

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 class hrs/wk 3 cr.

A continuation of 9.072, includes industrial environmental control, chemicals and toxicity, use of materials and industrial safety practices.

9.124 Steel Square
2 hrs/wk — 5 wks 1 cr.

The uses of the steel square as applicable to industrial maintenance.

9.125 Transit
2 hrs/wk — 5 wks 1 cr.

The uses of the transit as applicable to industrial maintenance.

9.126 Application of Strength of Materials
3 class hrs/wk 3 cr.

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 class hrs/wk 3 cr.

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 class hrs/wk 3 cr.

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 I
3 class hrs/wk 3 cr.

This course acquaints students with the day to day maintenance of internal combustion engines found in industry.

9.139 Industrial Engines Repair II
3 class hrs/wk 3 cr.

A continuation of Industrial Engines Repair I.

9.141 Industrial Electricity
3 class hrs/wk 3 cr.

Acquaints 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 class hrs/wk 3 cr.

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 class hrs/wk 3 cr.

A continuing study of fluid power components, theory mathematics and formulas. Industrial plant use of control circuits and hookups of fluid power systems. Prerequisite: Industrial Fluid Power I.



HUMANITIES

Course No. Course Title

LANGUAGE ARTS

COMPOSITION

	Sm		F		W		Sp	
	D	E	D	E	D	E	D	E
WR 111 English Composition	X	X	X	X	X	X	X	X
WR 112 English Composition	X	X	X	X	X	X	X	X
WR 113 English Composition			X	X	X	X	X	X
WR 1.101 Communication Skills I	X		X	X	X	X	X	X
WR 1.102 Communications Skills II			X	X	X	X	X	X
WR 1.103 Communication Skills III			X	X	X	X		
WR 1.112 Technical Report Writing			X	X	X	X		
WR 0.525 Basic English			X	X	X	X		

CREATIVE WRITING

	Sm	F	W	Sp
WR 241 Intro. to Imaginative Writing		X		
WR 242 Intro. to Imaginative Writing			X	
WR 243 Intro. to Imaginative Writing				X
WR 0.544 Writing for the Popular Market				X
WR 0.550 Writing for Children & Teenagers		X		
WR 0.553 Intro. to Playwriting			X	

FOREIGN LANGUAGE

	Sm	F	W	Sp
RL 50-2 First Year French		X	X	X

JOURNALISM

	Sm	F	W	Sp
JN 9.025 Journalism		X	X	X

LITERATURE

	Sm	F	W	Sp
Eng 104 Intro. to Literature	X	X	X	X
Eng 105 Intro. to Literature		X	X	X
Eng 106 Intro. to Literature	X	X	X	X
Eng 101 Survey of English Literature		X		
Eng 102 Survey of English Literature			X	
Eng 103 Survey of English Literature				X
Eng 107 World Literature		X		
Eng 108 World Literature			X	
Eng 109 World Literature				X
Eng 253 Survey of American Literature		X		
Eng 254 Survey of American Literature			X	
Eng 255 Survey of American Literature				X
Eng 201 Shakespeare		X		
Eng 202 Shakespeare			X	
Eng 203 Shakespeare				X
Eng 199 Literature of Pacific Northwest				X

SPEECH

	Sm	F	W	Sp
SP 111 Fundamentals of Speech I	X	X	X	X
SP 112 Fundamentals of Speech II		X	X	X
SP 113 Fundamentals of Speech III		X	X	X
SP 229 Interpretive Reading		X	X	X

PERFORMING ARTS

MUSIC

	Sm	F	W	Sp
MU 111 Music Theory I		X		
MU 112 Music Theory II			X	
MU 113 Music Theory III				X
MU 201 Intro. to Music & Literature		X		
MU 202 Intro. to Music & Literature			X	
MU 203 Intro. to Music & Literature				X
MU 180 Class Lessons in Guitar		X	X	X
MU 190 Performance Studies		X	X	X
MU 290 Performance Studies		X	X	X

Course No. Course Title

	Sm	F	W	Sp
MU 197 (C) Chorus (Concert Choir)		X	X	X
MU 297 (C) Chorus (Concert Choir)		X	X	X
MU 197 (S) Chorus (Swing Choir)			X	X
MU 297 (S) Chorus*(Swing Choir)			X	X
MU 0.520.6 Musicianship I		X		
MU 0.520.7 Musicianship II			X	
MU 0.520.8 Musicianship III				X
MU 0.522.2 Stage Band		X	X	X

THEATRE

	Sm	F	W	Sp
SP 248 Fundamentals of Acting		X		
SP 249 Stagecraft			X	
SP 250 Theatre Workshop				X

VISUAL ARTS

FINE ART

	Sm	F	W	Sp
Art 101 Weaving		X		
Art 102 Textile Design			X	
Art 103 Basic Craft Techniques				X
Art 201 Survey of Visual Arts		X		
Art 202 Survey of Visual Arts			X	
Art 203 Survey of Visual Arts				X
Art 195 Basic Design		X	X	X
Art 196 Applied Design			X	X
Art 291 Drawing Fundamentals		X	X	X
Art 281 Figure Drawing				X
Art 282 Advanced Drawing			X	X
Art 290 Painting I	X	X	X	X
Art 296 Painting II		X	X	X
Art 292 Watercolor Painting	X			
Art 235 Jewelry and Metalsmithing		X	X	X
Art 270 Printmaking		X		
Art 293 Elementary Sculpture		X		
Art 294 Art Metal Sculpture			X	X
Art 255 Ceramics I	X	X	X	X
Art 256 Ceramics II	X	X	X	X

GRAPHIC ARTS

	Sm	F	W	Sp
GA 3.150 Intro. to Graphic Communication		X		
GA 3.152 Graphic Prep. and Layout Design		X	X	
GA 3.154 Merchandising & Display Design			X	
GA 3.156 Sign Painting & Show Card Design	X			
GA 3.158 Advertising Typography		X		
GA 3.162 Photography I		X	X	X
GA 3.163 Photography II			X	X
GA 3.166 Graphic Production I			X	
GA 3.167 Graphic Production II				X
GA 3.168 Graphic Production III				X
GA 3.170 Art Tools & their Application		X		
GA 3.172 Commercial Illustration I			X	
GA 3.173 Commercial Illustration II				X
GA 3.180 Publications Lab		X	X	X
GA 3.181 Production Lab	X	X	X	X
GA 1.200 Work Experience	X	X	X	X

PHILOSOPHY

	Sm	F	W	Sp
PH 201 Problems of Philosophy		X		
PH 202 Elementary Ethics			X	
PH 203 Elementary Logic				X
PH 204 Philosophy of Religion				X

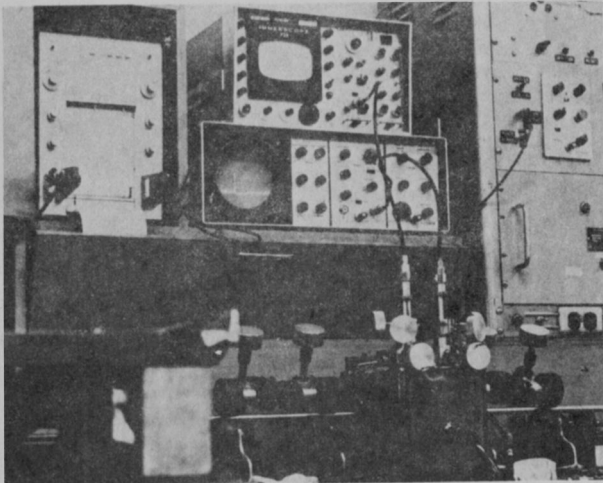
Course No. Course Title

MACHINE TOOL TECHNOLOGY

Course No.	Course Title	Sm		F		W		Sp	
		D	E	D	E	D	E	D	E
3.403	Machine Tools I	X		X		X		X	
3.404	Machine Tools II	X		X		X		X	
3.405	Machine Tools III	X		X		X		X	
3.406	Machine Tools IV	X		X		X		X	
3.407	Machine Tools V	X		X		X		X	
3.408	Machine Tools VI	X		X		X		X	
3.471	Cost Estimating								X

METALLURGICAL TECHNOLOGY

Course No.	Course Title	Sm		F		W		Sp	
		D	E	D	E	D	E	D	E
4.161	Materials Testing I				X				
4.162	Materials Testing II					X			
4.163	Materials Testing III								X
6.276	Physical Metallurgy					X			
6.281	Non-Destructive Testing I						X		
6.282	Non-Destructive Testing II								X
6.293	Intro. to Metallurgy			X	X				
6.294	Process Metallurgy							X	X
6.298	Metallography I				X				
6.299	Metallography II						X		
4.122	Strength of Materials	X							



WELDING

Course No.	Course Title	Sm		F		W		Sp	
		D	E	D	E	D	E	D	E
4.151	Welding I			X		X			
4.152	Welding II					X		X	
4.153	Welding Seminar							X	
4.240	Basic Arc Welding			X					
4.241	Intermediate Arc Welding					X			
4.242	Basic Oxyacetylene Welding			X					
4.243	Inter. Oxyacetylene Welding					X			
4.245	Layout Procedures for Welding					X			
4.246	Advanced Arc Welding							X	
4.250	Advanced Oxyacetylene Welding							X	
9.148	Prep. for Welder Certificate	X		X		X		X	
9.151	Beginning Welding (Occ. Ext.)	X		X		X		X	
9.152	Advanced Welding (Occ. Ext.)	X		X		X		X	

OCCUPATIONAL SERVICES DIVISION

AGRICULTURE

Course No. Course Title

Course No.	Course Title	Sm		F		W		Sp	
		D	E	D	E	D	E	D	E
8.100	Survey of Agriculture				X				
8.120	Seed Technology						X		
8.121	Seed Cleaning						X		
8.125	Soils I			X		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		X			
8.136	Turf Management II					X			
8.137	Turf & Plant Establishment			X					
8.138	Irrigation & Drainage			X					
8.140	Landscape Maintenance			X					
8.141	Landscape Planning						X		
9.817	Intro. to Animal Science				X				
8.144	Animal Science & Nutrition						X		
8.145	Feeds & Feeding								X
8.165	Plant Science			X					
8.180	Warehouse Management								X
8.188	Ag Equipment Maintenance						X		
8.230	Work Experience (Agriculture)								X
8.812	Seed Cleaning								ON DEMAND
9.813	Agriculture Chemicals								ON DEMAND
9.814	Soils & Fertilizers								ON DEMAND
9.822	Artificial Insemination								ON DEMAND

FIRE SCIENCE

Course No.	Course Title	Sm		F		W		Sp	
		D	E	D	E	D	E	D	E
5.250	Fire Fighting Skills I								
5.251	Fire Fighting Skills II								
5.253	Fire Apparatus & Equipment								
5.254	Intro. to Fire Protection								
5.255	Rescue & Emergency Care for Fire Science								
5.264	Building Const. for Fire Prev.								
5.260	Hazardous Materials I								
5.261	Hazardous Materials II								
5.262	Fund. of Fire Prevention								X
5.263	Pump Operation & Prac. Hydraulics								
5.265	Fire Dept. Organ. & Manage.								
5.272	Fire Protection Systems								
5.723	Fire Investigation								

COSMETOLOGY

Course No.	Course Title	Sm		F		W		Sp	
		D	E	D	E	D	E	D	E
3.101	Basic Hairstyling	X		X		X		X	
3.102	Advanced Hairstyling	X		X		X		X	
3.103	Hair Cutting	X		X		X		X	
3.104	Permanent Waving	X		X		X		X	
3.105	Hair Coloring	X		X		X		X	
3.106	Wiggery	X		X		X		X	
3.107	Manicuring	X		X		X		X	
3.108	Cosmetology	X		X		X		X	
3.109	Anatomy & Physiology	X		X		X		X	
3.110	Oregon Law	X		X		X		X	
3.111	Personality Development	X		X		X		X	

COSMETOLOGY (CONT.)

Course No.	Course Title	Sm		F		W		Sp	
		D	E	D	E	D	E	D	E
3.112	Business Management	X		X		X		X	
3.113	Sanitation, Hygiene & Bacteriology	X		X		X		X	

NURSING ASSISTANT

5.407	Nursing Assistant Lab			X		X		X	
5.406	Nursing Assistant Lecture			X		X		X	

ASSOCIATE DEGREE NURSING

5.711	Nursing I			X					
5.712	Nursing II					X			
5.713	Nursing III							X	
5.726	Nursing in Contem. Society			X					
5.727	Nursing in Contem. Society					X			
5.728	Nursing in Contem. Society							X	
5.729	Nursing in Contem. Society							X	
5.721	Nursing IV			X					
5.722	Nursing V					X			
5.723	Nursing VI							X	

CRIMINAL JUSTICE

CJS 111	Law Enforcement & Society			X	X				
CJS 112	Law Enforcement & Society					X	X		
CJS 113	Law Enforcement & Society							X	X
CJS 211	Administration of Crim. Jus.					X			
CJS 5.220	Intro. to Arrest, Search & Seizure					X			
CJS 214	Intro. to Criminal Invest.							X	
CJS 213	Legal Aspects of Evidence					X			
CJS 212	Concepts of Criminal Law					X			
CJS 5.224	Patrol Manag. & Operations			X					
CJS 5.225	Traffic Procedures			X					
CJS 5.229	Counseling & Interviewing					X			
CJS 5.230	Fund. of Crime & Delinquency			X					
CJS 5.231	Civil Procedures							X	
CJS 5.232	Intro. to Juvenile Delinquency							X	
CJS 5.233	Institutions & Agencies							X	

DENTAL ASSISTANT

5.445	Intro. Dental Assistant	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			
5.494	Clinical Practice I			X					
5.495	Clinical Practice II					X			
5.505	Dental Specialities					X			
5.510	Office Practicum							X	
5.515	Office Practicum Seminar							X	

PARENT-CHILD EDUCATION

Course No.	Course Title	Sm		F		W		Sp	
		D	E	D	E	D	E	D	E
7.110	Family Management & Decision Making *	X				X			
7.125	Home-School-Community			X				X	
7.140	Observ. & Recording Child Behavior			X				X	
7.150	Child Care Practices I			X				X	
7.151	Child Care Practices II	X				X			
7.180	Supervised Placement I	X				X			
7.181	Supervised Placement II			X				X	
7.190	Field Project I			X				X	
7.191	Field Project II	X				X			
7.260	Health of Young Children	X				X			

PHYSICAL EDUCATION & HEALTH

PE 180	Creative Movement					X			
PE 180	Beginning Ballet					X		X	X
PE 180	Intermediate Ballet					X		X	X
PE 180	Women's Gymnastics					X		X	
9.601	Women's Gymnastics Judging					X			X
PE 180	Body Conditioning					X	X	X	X
PE 180	Women's Tennis					X	X	X	X
PE 180	Women's Volleyball	X		X		X	X	X	X
PE 185	Beginning Bowling	X		X		X	X	X	X
PE 185	Intermediate Bowling	X		X		X	X	X	X
PE 185	Advanced Bowling	X		X		X	X	X	X
PE 185	Beginning Badminton	X		X		X	X	X	X
PE 185	Intermediate Badminton	X		X		X	X	X	X
PE 185	Beginning Golf	X		X				X	X
PE 185	Intermediate Golf	X		X				X	X
PE 185	Advanced Golf	X		X				X	X
PE 185	Jogging	X		X				X	X
PE 185	Beginning Swimming			X		X		X	X
PE 185	Intermediate Swimming			X		X		X	X
PE 185	Advanced Swimming			X		X		X	X
PE 185	Life Saving					X			
PE 185	Water Safety Instruction (WSI)							X	
PE 185	Tennis	X							
PE 190	Beginning Baseball			X					
PE 190	Advanced Baseball								X
PE 190	Baseball Conditioning							X	
PE 190	Baseball Skills							X	
PE 190	Softball	X							X
PE 190	Beginning Basketball			X		X			
PE 190	Intermediate Basketball	X		X		X		X	X
PE 190	Advanced Basketball			X		X			
PE 190	Body Conditioning			X		X		X	
PE 190	Flag Football			X					
PE 190	Men's Gymnastics			X					
PE 190	Handball	X		X		X		X	
PE 190	Men's Tennis			X				X	
PE 190	Volleyball	X		X		X		X	
PE 190	Wrestling					X			
HE 131	Intro. to Health & Physical Education			X					
HE 250	Personal Health	X		X		X	X	X	X
HE 252	First Aid			X	X	X	X	X	X
9.137	First Aid-Multi-Media	X		X		X		X	
4.191	Standard Red Cross								

ON DEMAND

Business Division

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 individuals within our economic system. It offers a knowledge and understanding of business and business methods that will help the student cope with our changing society.

The Business Division attempts to meet the needs of all students, including those persons working full time in business and industry. It offers one-year and two-year programs leading to certificates and degrees. The Division also offers a variety of courses for those students with special needs and interests. Many of these courses are offered in the evenings. A number of one-day seminars are sponsored throughout the year, designed especially for people currently employed in the management and sales professions.



CHAIRMAN:

Philip Clark

FACULTY:

- Illa Atwood, Business Skills
- Garland Brooks, Business Management
- Maynard Chambers, Dept. Chairman-Business Mgt.
- Patsy Chester, Dept. Chairman-Business Skills
- Dorothy Hazel, Business Skills
- Dorothy Lawrence, Business Skills
- Elmo Ledbetter, Business Management
- James Moran, Program Coor.-Data Processing
- Joyce Moreira, Business Skills
- Alan Schultz, Business Management
- Stephen Shelton, Data Processing
- Albert Walczak, Business Skills

BUSINESS MANAGEMENT

This two-year program is designed to meet the needs of persons preparing for employment in a variety of 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. Career opportunities include both sales and management positions in: Retail Business, Public Utilities, Insurance Companies, Real Estate Agencies, Transportation Firms, and Manufacturing Industries.

The following outline indicates the general course requirements for those seeking the Associate of Science in Business Management. Students wishing to take individual courses to qualify for specific employment opportunities may do so with the consent of the Chairman of the Business Division.

FRESHMAN YEAR

Course No.	Course Title	Sm	F	W	Sp
2.500	Bus. Orientation & Career Awareness	1			
1.101-3	Communication Skills I, II, III	3	3	3	
2.530-2	Practical Accounting I, II, III	3	3	3	
2.501	Typewriting I or Proficiency	2			
2.515	Business Math	3			
2.131	Marketing	3			
2.521	Office Machines		3		
2.119	Business Management		3		
HE 250	Health		2		
2.551	Business Correspondence				3
2.751	or Personal Development (Men)				2
2.748	Personal Development (Women)				2
BA 101	Elective or Intro. to Business				4
PE 180/190	Physical Education		1	1	1
			16	15	16

SOPHOMORE YEAR

Course No.	Course Title	Sm	F	W	Sp
2.631-3	or Organ. Work Experience				6 or 4
2.710-2	On-the-Job Training (Mgt.)				6 or 4
In addition, all Sophomore Business Management students must take the following courses:					
2.510	Intro. to Data Processing		4		
1.112	Technical Report Writing		3		
9.502	Psychology for Supervisors		3		
2.518	Business Law			3	
2.110	Principles of Salesmanship			3	
2.585	Management Decision Simulation				3
1.524	Applied Economics				3
In addition, students taking the O.W.E. option must complete 6 credits from the following list; students taking the O.J.T. option must complete 12 credits from the following list:					
9.743	Income Tax Preparation		3		
2.534	Cost Accounting			3	
2.222	Financial Management				3
2.134	Retail Merchandising				3
2.558	Intro. to Programming		3	3	3
2.575	Systems and Procedures				3
2.516	Intro. to Business Statistics			3	
0.841	Personal Finance				3

The Business Division 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;*
 1. A two-year program in Secretarial Science—Business Education 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 Accounting Technology 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 PROGRAM

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 Clerical Services leading to a Certificate of Completion;
11. A one-year program in Supervisory Training leading to an Advanced Supervisory Certificate;
12. A one-year Certificate of Completion in Data Processing;

SPECIAL PROGRAMS

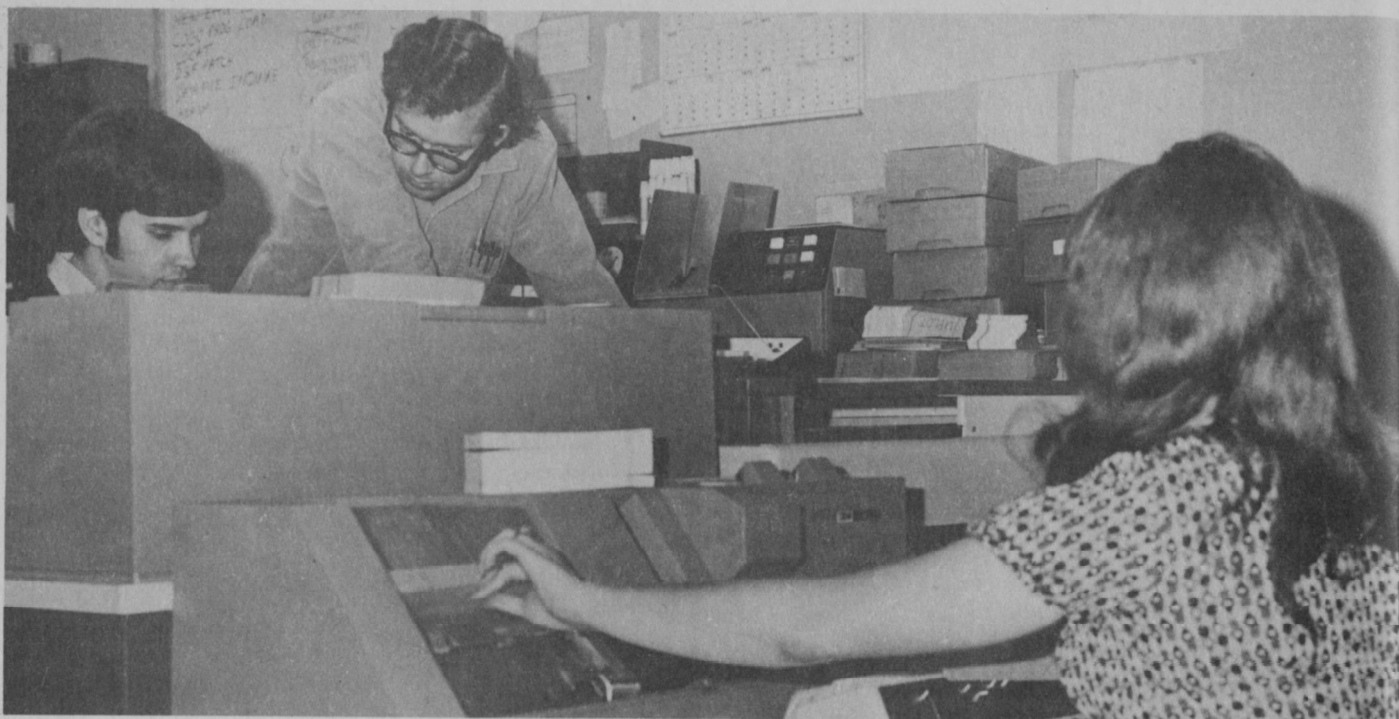
13. A short program in Supervisory Training leading to a Supervisory Certificate;
14. Courses to fit the personal or vocational needs of part-time students in the day or evening programs;
15. Varied general business courses for students majoring in other fields who desire some background and specific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

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

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

Course No.	Course Title	Sm	F	W	Sp
1.101	Communication Skills I		3		
1.102	Communication Skills II				3
2.501-3	Typewriting I, II, III	2	2	2	
2.541-3	Stenography I, II, III	3	3	3	
2.551	Business Correspondence		3		
2.521	Office Machines		3		
2.530-1	Practical Accounting		3	3	
2.528	Clerical Office Procedures			4	
2.515	Business Math	3			
9.502	Psychology for Supervisors	3			
2.500	Bus. Orientation & Career Awareness	1			
2.748	Personal Development (Woman)				2
2.751	or Personal Development (Man)				2
		15 16 15			

SOPHOMORE YEAR

Course No.	Course Title	Sm	F	W	Sp
2.631-3	or Organizational Work Experience				6 or 4
2.613-5	On-the-Job Training				6 or 4
In addition, all Secretarial Science majors must take the following courses:					
2.545-7	Applied Stenography I, II, III	3	3	3	
1.112	Technical Report Writing		3		
2.510	Intro. to Data Processing	4			
HE 250	Personal Health				2
PE 180/190	Physical Education	1	1	1	

In addition: Students taking the O.W.E. option must complete 6 units from the following list; Students from the O.J.T. option must complete 12 units from the following list:

2.518	Business Law			3	3
1.524	Applied Economics	3	3	3	
2.522	Advanced Office Machines	3	3	3	3
2.532	Practical Accounting III	3	3	3	3
0.841	Personal Finance				3
1.103	Communication Skills III		3	3	3
2.504	Typing IV	3	3	3	3
2.507	Executive Typewriter	3	3	3	3
2.527	Transcribing Machines	3	3	3	3

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

Course No.	Course Title	Sm	F	W	Sp
2.509	Intro. to Computers		3		
2.558	Intro. to Programming		3		
2.511	Data Processing Mathematics		4		
2.565	Documentation Procedures			3	
2.562-3	Micro Language I, II		3	3	
2.575	Systems & Procedures				3
1.101-2	or Communication Skills I, II		3	3	
Wr 111-2	or English Composition		3	3	
1.524	Applied Economics				3
2.518	Business Law				3
2.530-2	Practical Accounting I, II, III		3	3	3
BA 211-3	or Principles of Accounting I, II, III		3	3	3
HE 250	Health				2
PE 180/190	Physical Education	1	1	1	
		17 15 16			

SOPHOMORE YEAR

Course No.	Course Title	Sm	F	W	Sp
2.566	Operating Systems Concepts		3		
2.569-70	Macro Language I, II	3	3		
2.578	Programming Concepts & Technology		3		
2.580	Application Programs		3		
2.582	Data Processing Field Project				8
2.585	Management Decision Simulation				3
2.516	Intro. to Business Statistics		3		
2.222	Financial Management				3
9.502	Psychology for Supervisors	3			
General Education Electives		6	3		
		15 15 14			

ACCOUNTING TECHNOLOGY

This two-year program is designed to prepare students for highly rewarding career positions in accounting. Accounting positions exist in public accounting firms; retail, industrial, and manufacturing businesses; and in various government agencies.

Career opportunities include accounting clerk, full-charge bookkeeper, junior accountant, internal auditor, and management trainee.

The following outline indicates the general course requirements for those seeking the Associate of Science Degree in Accounting Technology. Students wishing to take individual courses to qualify for special employment opportunities may do so with the consent of the Chairman of the Business Division.

FRESHMAN YEAR

Course No.	Course Title	Sm	F	W	Sp
2.500	Bus. Orientation & Career Awareness	1			
1.101-3	Communication Skills I, II, III	3	3	3	
2.530-2	Practical Accounting I, II, III	3	3	3	
2.501	Typewriting I or Proficiency	2			
2.515	Business Math	3			
2.119	Business Management	3			
2.521	Office Machines		3		
2.510	Intro. to Data Processing		4		
HE 250	Health		2		
2.518	Business Law			3	
2.751	Personal Development (Men)				2
2.748	or Personal Development (Women)				2
2.558	Intro. to Programming				3
PE 180/190	Physical Education		1	1	1
			16	16	15

SOPHOMORE YEAR

Course No.	Course Title	Sm	F	W	Sp
2.631-3	or Organ. Work Experience				
2.710-2	On-the-Job Training (Mgt)		6	or 4	
In addition, all Sophomore Accounting Technology students must take the following courses:					
2.595-7	Inter. Accounting I, II, III	3	3	3	
9.743	Income Tax Preparation	3			
2.534	Cost Accounting		3		
2.222	Financial Management			3	
1.112	Technical Report Writing	3			
In addition, students taking the O.W.E. option must complete 6 credits from the following list; students taking the O.J.T. option must complete 12 credits from the following list:					
2.131	Elements of Marketing	3			
2.110	Elements of Salesmanship		3		
2.134	Retail Merchandising			3	
2.551	Business Correspondence			3	3
BA 101	Introduction to Business	4	4	4	4
2.575	Systems and Procedures			3	
2.516	Intro. to Business Statistics		3		
0.841	Personal Finance				3

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 position or is preparing for such a position.

There 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 the 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 SUPERVISION (18 quarter cr.)

Course No.	Course Title	Sm	F	W	Sp
9.500	Elements of Supervision		3		
9.501	Written Comm. for Supervisors			3	
9.502	Basic Psy. for Supervisors		3	3	3
9.504	Developing Employees through Trgn. Elective (1 course from List A)				3
	Elective (1 course from Lists A or B)				

CERTIFICATE IN ADVANCED SUPERVISOR DEVELOPMENT (45 quarter cr.)

Course No.	Course Title	Sm	F	W	Sp
9.500	Elements of Supervision		3		
9.501	Written Comm. for Supervisors			3	
9.502	Basic Psy. for Supervisors		3	3	3
9.503	Oral Comm. for Supervisors		3		
9.504	Developing Employees through Trgn.				3
9.506	Human Relations				3
9.508	Labor-Management Relations				ON DEMAND
9.509	Industrial Economics				ON DEMAND

One course from List A, 3 credits, and 4 courses from Lists A or B, or 12 credits for supervision experience and courses totaling 12 term units.

ASSOCIATE IN SCIENCE DEGREE* (90 quarter hrs.)

Course No.	Course Title	Sm	F	W	Sp
9.500	Elements of Supervision		3		
9.502	Basic Psychology for Supervisors		3	3	3
9.504	Developing Employees through Trgn.				3
9.506	Human Relations				3
9.508	Labor-Management Relations				ON DEMAND
9.512	Methods Improvement for Super.				3
9.514	Cost Control for Supervisors		3		

Two courses from List A
Written Communications
Oral Communications
OCCUPATIONAL COURSES (15 cr. with at least one sequence of three courses in a specific field)

ELECTIVE COURSES

General Education courses (12 cr.) from List B
General Electives (27 cr.) from Lists A or B
Credit for supervisory experience can be submitted for up to 24 credits of general electives. See Dean of Instruction for this information.

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

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.

GENERAL BUSINESS

This is a one-year program for students not wishing to spend two full years before entering the job market.

Career opportunities include accounting clerks, inventory clerks, retail sales, and customer service representatives.

Upon satisfactory completion of the required courses, and having filed an application with the Office of Registrar, a Certificate of Completion is granted.

The following schedule of courses will lead to the awarding of the Certificate of Completion. Students wishing to take individual courses to qualify for specific employment opportunities may do so with the consent of the Chairman of the Business Division.

Course No.	Course Title	Sm	F	W	Sp
2.500	Bus. Orientation & Career Awareness	1			
1.101-3	Communication Skills I, II, III	3	3	3	
2.530-2	Practical Accounting I, II, III	3	3	3	
2.501	Typewriting I or Proficiency	2			
2.515	Business Math	3			
2.131	Marketing	3			
2.751	or Personal Development (Men)	2			
2.748	Personal Development (Women)				
2.521	Office Machines			3	
2.119	Business Management			3	
2.551	Business Correspondence			3	
2.509	Intro. to Data Processing				4
9.502	Psy. for Supervisors				3
2.518	Business Law				3
		17		15 16	

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.

Course No.	Course Title	Sm	F	W	Sp
1.101-2	Communication Skills I, II	3		3	
2.501-3	Typewriting I, II, III	2	2	2	
2.541-3	Stenography I, II, III	3	3	3	
2.551	Business Correspondence			3	
2.521	Office Machines			3	
2.530-1	Practical Accounting I, II			3	3
2.528	Clerical Office Procedures				4
2.515	Business Math	3			
9.502	Psy. for Supervisors	3			
2.500	Bus. Orientation & Career Awareness	1			
2.748	or Personal Development (Women)			2	
2.751	Personal Development (Men)				
		15		16 15	

CLERICAL SERVICES

This one-year curriculum is designed to provide students with experience and training necessary for clerical positions. These courses may also serve to prepare the student for civil service examinations. After completing this program and filing an application with the Office of the Registrar, the student will be awarded a Certificate of Completion.

Course No.	Course Title	Sm	F	W	Sp
2.515	Business Math	3			
2.500	Bus. Orientation & Career Awareness	1			
2.748	or Personal Development (Women)			2	
2.751	Personal Development (Men)				
2.501-3	Typing I, II, III	2	2	2	
1.101-2	Communication Skills I, II	3	3		
2.530-1	Practical Accounting I, II	3	3		
2.521	Office Machines			3	
2.551	Business Correspondence			3	
2.510	Intro. to Data Processing				4
2.528	Clerical Office Procedures				4
9.502	Psy. for Supervisors				3
2.527	Transcribing Machines				2
		14		14 15	

BA 101 Introduction to Business
4 class hrs/wk 4 cr. Sm/F/W/Sp

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 cr. Sm/F/W

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 cr. Sm/W/Sp

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 cr. Sp

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 cr. On Demand

Study of the purpose and effectiveness of communications in business. Analysis and writing in simulated situations. Prerequisite: Wr 112 or consent of instructor.

BA 217 Basic Accounting and Financial Analysis
3 class hrs/wk 3 cr. On Demand

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 cr. W

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 Intro. to Business Statistics
4 class hrs/wk 4 cr. Sp

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 cr. Sm/F/W/Sp

Introduction to theory of Gregg shorthand, including the alphabet, brief forms, phrasing and abbreviating principles.

SS 112 Stenography II
5 class hrs/wk 3 cr. Sm/F/W/Sp

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 III or equivalent.

SS 113 Stenography III
 5 class hrs/wk 3 cr. Sm/F/W/Sp
 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
 6 class hrs/wk 3 cr. F/W/Sp
 A thorough and extensive review of Gregg Shorthand, advanced principles, phrases and short cuts, dictation covering vocabularies representative of various types of businesses. Basic skills of office work are stressed. Prerequisite: SS 113 or equivalent.

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

SS 213 Applied Stenography
 6 class hrs/wk 3 cr. F/W/Sp
 A continuation of SS 212 with emphasis on speed, accuracy and secretarial standards. Included in this course will be legal, medical, and technical dictation and transcription. Prerequisite: SS 212 or equivalent.

SS 121 Typewriting I
 5 class hrs/wk 2 cr. Sm/F/W/Sp
 A beginning course in typing for those with no previous instruction or those needing a review of basic techniques. 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.

SS 122 Typewriting II
 5 class hrs/wk 2 cr. Sm/F/W/Sp
 Continued practice in the mastery of the keyboard with emphasis on speed, accuracy, and secretarial standards. Review and advanced work in manuscripts, tabulations, business forms, rules that govern word division, correspondence and similar typing techniques. Individualized instruction prevails throughout the entire typing sequence. Students will be given the opportunity to advance at their own rate. Prerequisite: Typewriting I - SS 121 or equivalent.

SS 123 Typewriting III
 5 class hrs/wk 2 cr. Sm/F/W/Sp
 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. Prerequisite: Typewriting II - SS 122 or equivalent.

SS 124 Typing Skill Building
 5 class hrs/wk 2 cr. Sm/F/W/Sp
 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.



2.538 Personal Shorthand
5 class hrs/wk 3 cr. W

A course designed for people needing a short and rapid method of writing both notes and verbatim dictation. It covers the theory of ABC Stenoscript, including the dominant sound rule, hi-frequency words, hi-frequency letter groups, prefix and suffix rules, and phrasing and abbreviating principles. There is emphasis on the development of speed and accuracy in dictation and transcription.

2.541 Stenography I (Gregg)
5 class hrs/wk 3 cr. Sm/F/W/Sp

Introduction to Gregg shorthand theory, including the alphabet, brief forms, phrasing, and abbreviating principles.

2.542 Stenography II (Gregg)
5 class hrs/wk 3 cr. Sm/F/W/Sp

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 cr. Sm/F/W/Sp

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 cr. On Demand

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 cr. On Demand

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 cr. On Demand

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 cr. F/W/Sp

A thorough and extensive review of shorthand, advanced principles, phrases and short cuts, dictation covering vocabularies representative of various types of business. Basic skills of office work are stressed. Prerequisite: 2.543 Stenography III or equivalent.

2.546 Applied Stenography II
6 class hrs/wk 3 cr. F/W/Sp

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 cr. F/W/Sp

A continuation of 2.546 with emphasis on speed, accuracy and secretarial standards. Included in this course will be legal, medical, and technical dictation and transcription. Prerequisite: 2.546 or equivalent.

2.548 Applied Stenography IV
6 class hrs/wk 3 cr. On Demand

A continuation of 2.547 with emphasis on speed, accuracy and secretarial standards. Prerequisite: 2.547 or equivalent.

2.500 Business Orientation & Career Awareness
1 cr. F

This course is designed to introduce to the student the various career opportunities in the business field. Included in the course will be films, speakers, and field trips.

2.501 Typewriting I
5 class hrs/wk 2 cr. Sm/F/W/Sp

A beginning course in typing for those with no previous typing instruction or for those needing a review of basic techniques. 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.

2.502 Typewriting II
5 class hrs/wk 2 cr. Sm/F/W/Sp

Continued practice in the mastery of the keyboard with emphasis on speed, accuracy, and secretarial standards. Review and advanced work in manuscripts, tabulation, business forms, rules that govern word division, correspondence and similar typing techniques. Individualized instruction prevails throughout the entire typing sequence. Students will be given the opportunity to advance at their own rate. Prerequisite: 2.501 - Typing I or equivalent.

2.503 Typewriting III
5 class hrs/wk 2 cr. Sm/F/W/Sp

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. Prerequisite: 2.502 - Typewriting II or equivalent.

2.504 Typewriting IV
5 class hrs/wk 2 cr. Sm/F/W/Sp

Additional units on correspondence, business forms, manuscripts, with special job-oriented projects and composition at the typewriter. Emphasis on speed and accuracy improvement. Individualized instruction prevails throughout the entire typing sequence. Students will be given the opportunity to advance at their own rate. Prerequisite: 2.503 - Typewriting III

2.505 Typing Skill Building
5 class hrs/wk 2 cr. Sm/F/W/Sp

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 required for enrollment. Prerequisite: Typing I - 2.501 or equivalent.

2.507 Executive Typewriter
1 cr. Sm/F/W/Sp

This course will allow the student an opportunity to develop skill in using the executive typewriter. Students will be responsible for scheduling their time to develop the necessary skill. Prerequisite: Typing II, 2.502.

2.527 Transcribing Machines
2 cr. Sm/F/W/Sp

This course will allow the student an opportunity to develop a job-entry level skill on the transcribing machine. Students will be responsible for scheduling their time to develop the necessary skill. Prerequisite: Typing II, 2.502.

2.551 Business Correspondence
 3 class hrs/wk 3 cr. W/Sp

The analysis and composition of the principal types of present-day business letters and reports. Prerequisites: Communication Skills I and Typing 2.501.

2.528 Clerical Office Procedures
 8 class hrs/wk 4 cr. Sm/W/Sp

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 office skills and techniques. Prerequisite: 2.502 - Typing II.

2.521 Office Machines
 5 class hrs/wk 3 cr. Sm/F/W/Sp

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 cr. Sm/F/W/Sp

A continuation of the initial course in Office Machines. Includes emphasis on building speed as well as practical business applications. Prerequisite: 2.521.

2.515 Business Mathematics
 5 class hrs/wk 3 cr. Sm/F/W/Sp

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, markup, depreciation, and interest. The student is allowed to advance at his own rate.

2.530 Practical Accounting I
 5 class hrs/wk 3 cr. Sm/F/W/Sp

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 cr. Sm/F/W/Sp

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 - 2.530.

2.532 Practical Accounting III
 5 class hrs/wk 3 cr. Sm/F/W/Sp

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 - 2.531.

2.595 Intermediate Accounting I
 3 class hrs/wk 3 cr. F

An advanced study of accounting theory and practice for measurement of income and valuation of assets in financial statement presentation. A critical re-evaluation of accounting concepts and the alternative approaches to various problems are reviewed. Prerequisite: Practical Accounting III, Principles of Accounting III, or consent of instructor.

2.596 Intermediate Accounting II
 3 class hrs/wk 3 cr. W

A continuation of Intermediate Accounting I. Advanced concepts and procedures of valuation for various types of assets and liabilities. Special problems related to investments; plant, property, and equipment; consolidations, and corporate accounting. Prerequisite: Intermediate Accounting I.

2.597 Intermediate Accounting III
 3 class hrs/wk 3 cr. Sp

A continuation of Intermediate Accounting II. Special emphasis on fund flow analysis, financial ratios, preparing statements from incomplete data, correcting errors in prior year statements, and price-level changes. Prerequisite: Intermediate Accounting II.

2.534 Cost Accounting
 3 class hrs/wk 3 cr. W

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 II.

9.743 Income Tax Preparation
 3 class hrs/wk 3 cr. F

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.

2.222 Financial Management
 3 class hrs/wk 3 cr. Sp

A specialized course dealing with financing a business operation. Topics covered will deal with the tax environment, analysis of financial statements, working capital management, slow and long-term financial planning, budgeting and control. Prerequisites: Practical Accounting II or Principles of Accounting II.

0.841 Personal Finance
 3 class hrs/wk 3 cr. Sp

A thorough study of home financing, installment buying, insurance, investments, wills, and other phases of managing family finances.

2.119 Business Management
 3 class hrs/wk 3 cr. F/W/Sp

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 of policies, purchasing procedures, financial requirements, budgeting, human relations, physical facilities, and government regulations.

2.110 Principles of Salesmanship
 3 class hrs/wk 3 cr. W

An introductory course on the subject of business from the viewpoint of the sales-oriented firm. Included 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 cr. F

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; standardization, grading and pricing; government regulations of completion.

2.134 Retail Merchandising
3 class hrs/wk 3 cr. Sp

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.

2.516 Intro. to Business Statistics
3 class hrs/wk 3 cr. W

A statistical analysis of business and economic data used in controlling an operation and in making sound business decisions. Special attention 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 cr. W/Sp

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 information, operation, performance and discharge.

1.524 Applied Economics
3 class hrs/wk 3 cr. F/Sp

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.

1.500 Employer-Employee Relations
3 class hrs/wk 3 cr. On Demand

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.

2.585 Management Decision Simulation
3 class hrs/wk 3 cr. Sp

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 would normally take many years of time. Prerequisite: Sophomore standing with a business background. Required for all Business Data Processing majors.

2.751 Personal Development for the Professional Man
3 class hrs/wk 2 cr. F/Sp

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.

2.748 Personal Development for the Business & Professional Woman
3 class hrs/wk 2 cr. Sm/F/W/Sp

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.



2.613-5 On-the-Job Training (Secretarial)
16 hrs/wk 4 cr. Sm/F/W/Sp

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 course must equal at least 16 hours per week. A weekly seminar also is required. Prerequisite: Consent of Business Division before registration.

2.710-2 On-the-Job Training (Business Mgt.)
16 hrs/wk 4 cr. Sm/F/W/Sp

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.

2.631-3 Organizational Work Experience
12.5 hrs/wk 6 cr. Sm/F/W

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.

SUPERVISORY TRAINING

- 9.500 Elements of Supervision**
3 class hrs/wk 3 cr. F
A basic introductory course covering in general terms the total responsibilities of a supervisor in industry, such as organization, duties and responsibilities, human relations, grievance, training, rating, promotion, quality-quantity control, and management-employee relations.
- 9.501 Written Communications for Supervisors**
3 class hrs/wk 3 cr. W
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 Psychology for Supervisors**
3 class hrs/wk 3 cr. F/W/Sp
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 cr. F
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 Thru Trgn.**
3 class hrs/wk 3 cr. Sp
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 cr. On Demand
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 enrollees.
- 9.506 Human Relations (Developing Supervisory Leadership)**
3 class hrs/wk 3 cr. Sp
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 cr. On Demand
General approach to better reading through the proper use of text materials, reading films, tachistoscope and practice. Benefits of better reading, evaluating and analyzing what is read, vocabulary improvement, advanced reading tips.
- 9.508 Labor-Management Relations**
3 class hrs/wk 3 cr. On Demand
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 procedure.
- 9.509 Industrial Economics**
3 class hrs/wk 3 cr. On Demand
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 Simplifications)**
3 class hrs/wk 3 cr. Sp
The supervisor's responsibility for job methods improvement. The basic principles of work simplification. Administration and the problems involved. Motion study fundamentals for supervisors.
- 9.514 Cost Control for Supervisors**
3 class hrs/wk 3 cr. F
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 cr. On Demand
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 cr. W
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 cr. On Demand
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 cr. On Demand
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 cr. On Demand
Basic principles of controls. Delegation of responsibility through the use of quality control, quantity control, production control, control over materials, control over personnel, organization.

DATA PROCESSING

2.508 Key punch Operation
2 cr. Sm/F/W/Sp

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 is also recommended.

2.509 Introduction to Computers
5 class hrs/wk 3 cr. F

This course is designed for students majoring in data processing. Emphasis is placed on "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, and third-generation operating systems concepts are covered. Consideration is given throughout the course to the application of data processing systems and the correlation of systems design to the application.

2.510 Introduction to Data Processing
5 class hrs/wk 4 cr. Sm/F/W/Sp

The prime objective of this course is to introduce the layman to the world of data processing and its influence on his everyday life. Topics include: the history of data processing, the punched card, card-oriented processing systems, analysis of computer-generated reports, third generation processing systems, and number systems. A symbolic, machine oriented language will be used to explain data flow, and several problems will be solved utilizing a procedure-oriented language.

2.511 Data Processing Mathematics
6 class hrs/wk 4 cr. F

Emphasis is placed on a study of computer related mathematics and how these mathematical methods may be utilized by the computer programmer. Topics include: set theory, number systems, data flow and stored number concepts, boolean logic, computational accuracy, and algorithms. Co-requisite: One year of high school algebra or equivalent and instructor approval.

2.558 Introduction to Programming
5 class hrs/wk 3 cr. Sm/F/Sp

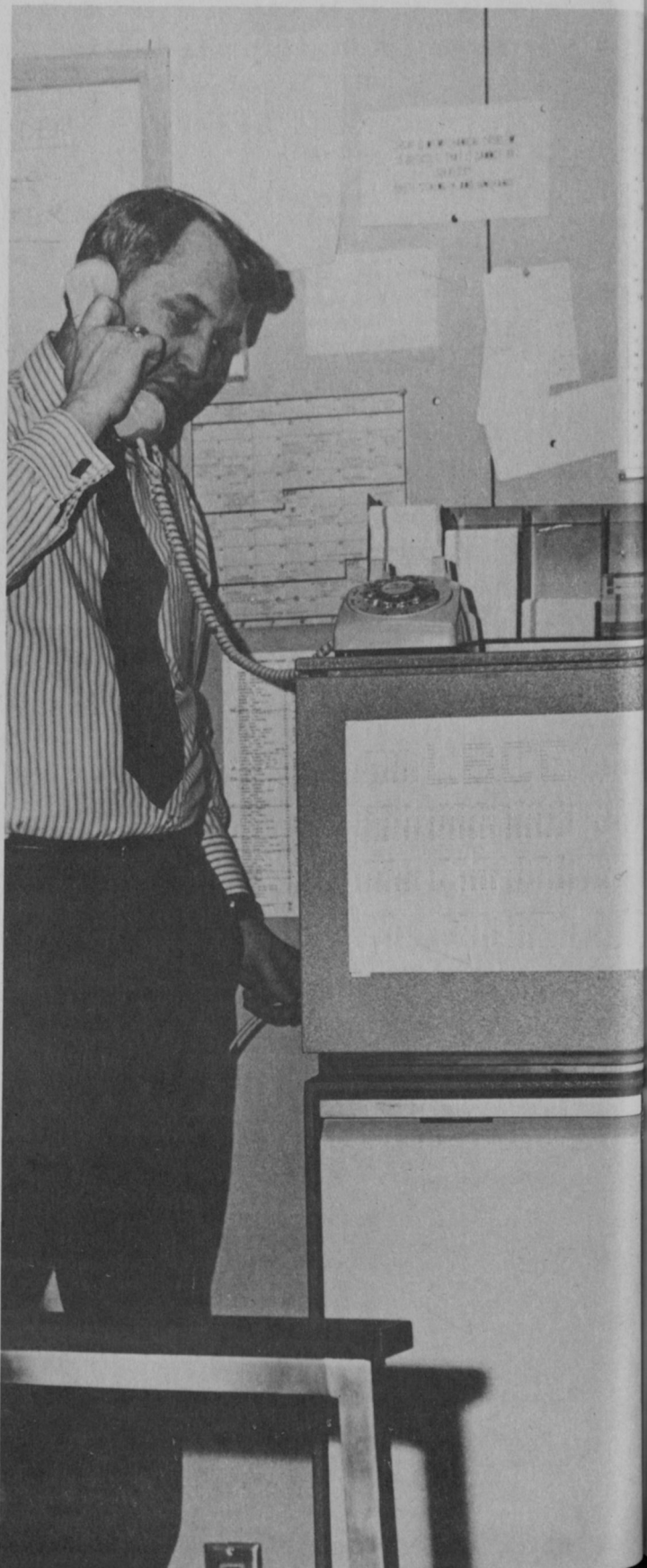
This course provides the student with the opportunity to write computer programs using a procedure or problem oriented language. It serves two main purposes: 1) introduces the student to the tasks that a computer programmer must perform; and 2) provides the student with the means to program a modern computing system. The computer language currently in use is FORTRAN. The topics covered are: input/output, arithmetic statements, transfer and control statements, arrays, and subprograms.

2.562 Micro-Language I
5 class hrs/wk 3 cr. W

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 Computers and Introduction to Programming.

2.563 Micro-Language II
5 class hrs/wk 3 cr. Sp

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.



2.565 Documentation Procedures
 5 class hrs/wk 3 cr. W

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.

2.566 Operating Systems Concepts
 5 class hrs/wk 3 cr. F

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. Should be taken concurrently with Macro-Language I.

2.569 Macro Language I
 5 class hrs/wk 3 cr. F

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 statements, 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 cr. W

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
 5 class hrs/wk 3 cr. Sp

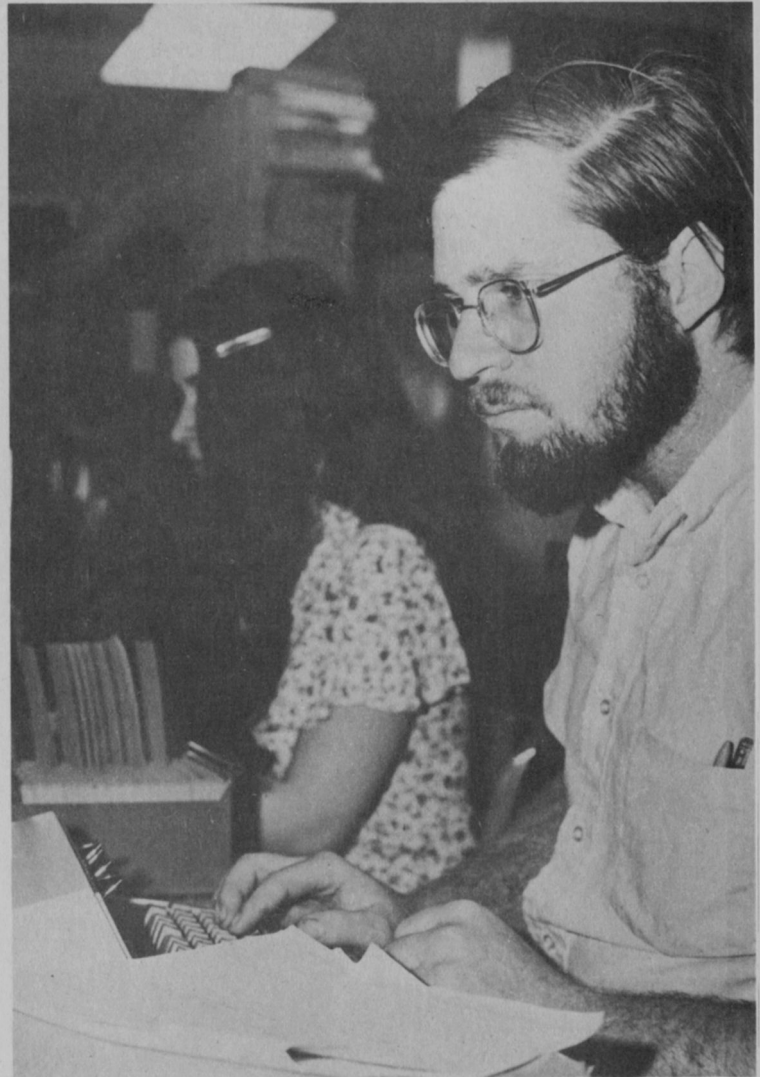
A look at the role of the data processing function within a modern business environment and how it can be used to further the goals of the firm. Overall job development and implementation will be studied using the case method approach. The "human VERSUS machine" environment will be stressed. Prerequisite: Permission of instructor.

2.578 Programming Concepts & Technology
 5 class hrs/wk 3 cr. W

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. Prerequisite: Macro-Language I.

2.580 Application Programs
 5 class hrs/wk 3 cr. W

This course examines several of the "canned programs" provided by software manufacturers. Applications such as PERT, linear programming, statistical routines, matrix operations, commercial sub-routine packages, and utility programs via a remote terminal will be studied and implemented. Prerequisite: Macro-Language I.



2.582 Data Processing Field Project
 20 class hrs/wk 8 cr. Sm/F/W/Sp

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. Prerequisite: Consent of instructor.

2.589 Data Processing Readings & Conferences
 1-20 class hrs/wk 1-10 cr. Sm/F/W/Sp

Topics covered in this course are at the discretion of the instructor and the student. Subject areas of particular interest to the student or areas where the student needs some additional work can be covered under this course. The number of credits can vary from 1 to 10.



Humanities Division

The Humanities, the oldest of all academic disciplines, looks to that aspect of man which makes him peculiarly human--his language, his philosophy, and his art.

At Linn-Benton Community College, the Humanities Division is organized into four areas; language arts, performing arts, visual arts, and philosophy. Each of these content areas is further organized into specific subject matter specialities emphasizing precise humanistic skills and knowledge.

The objectives of the Humanities Division are to offer complete lower division preparation in the Humanities for transfer students planning entrance to a four-year college; to provide specific occupational and vocational skills for non-transfer students; and for all students, to stimulate the development of human thought and imagination and to satisfy man's desire for creative enrichment and aesthetic development.

CHAIRMAN:

Kenneth Cheney

FACULTY:

- Arthur Bervin, Language Arts
- J.W. Brick, Visual Arts
- Shirley Call, Language Arts
- Thomas Chase, Language Arts
- Donald Minnick, Language Arts
- Barry Startz, Language Arts
- Martha Tokarski, Language Arts
- Richard West, Performing Arts
- Barbarajene Williams, Language Arts

LANGUAGE ARTS

The Language Arts curriculum is designed to provide skill building opportunities in written and spoken communication as well as aesthetic appreciation and understanding of the various literary genres. Course offerings exist in foreign language (French), journalism, writing, literature, and speech. All courses offered in Language Arts are fully transferable with the exception of some classes in writing and journalism.

COMPOSITION

Wr 111 English Composition
3 class hrs/wk 3 cr. Sm/F/W/Sp

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. Frequent written themes and tutorial conferences.

Wr 112 English Composition
3 class hrs/wk 3 cr. Sm/F/W/Sp

A study of the procedures and methods used to produce the research paper. Special attention is given to library research techniques and the organization and development of argumentative research writing to include bibliographical development, note taking, and outlining. Prerequisite: Wr 111.

Wr 113 English Composition
3 class hrs/wk 3 cr. F/W/Sp

A study of creative writing that examines the compositional design of the poem, the play, the short story, and makes application of these modes in the student's writing experiences. The course places primary emphasis on developing the writing of each student by providing him with opportunities to examine, explore, and experience the imaginative writing process. Prerequisite: Wr 111.

Wr 1.101 Communication Skills I
3 class hrs/wk 3 cr. Sm/F/W/Sp

An open-ended, programmed-learning approach to basic usage and grammatical skills. The approach is clinical in nature. Students progress at their own speed. Pre-test performance may excuse students from one or all units. Individual assistance is emphasized.

Wr 1.102 Communication Skills II
3 class hrs/wk 3 cr. F/W/Sp

A course dealing with basic rhetorical skills emphasizing expository writing. Not open-ended, the approach is more traditional. Practice in business oriented as distinguished from academic writing is stressed. Prerequisite: Wr 1.101.

Wr 1.103 Communication Skills III
3 class hrs/wk 3 cr. F/W/Sp

A course emphasizing interpersonal communication skills applicable to personal and professional life. A human relations course designed to improve a student's speaking and listening ability. Stresses the importance and application of verbal and non-verbal communication.

Wr 1.112 Technical Report Writing
3 class hrs/wk 3 cr. F/W/Sp

A course designed to provide the technological or scientific student with intensive research and writing practice in his own field. Individual instruction is emphasized so that the student engages only in writing projects specifically applicable to his needs. One major paper integrated with a class project will constitute the major element in the course. Prerequisite: Wr 1.101 or equivalent.

Wr 0.525 Basic English
3 class hrs/wk 3 cr. F/W/Sp

A review of English designed for the student who is deficient in the principles of English grammar, sentence structure, and usage. The course is open-ended. Students progress at their own speed using programmed materials. Individual assistance is emphasized. Prerequisite: referral by counselor.

CREATIVE WRITING

Wr 241 Intro. to Imaginative Writing
3 class hrs/wk 3 cr. F

A course which deals with the elements of fiction (dialogue, setting, characters, tone) by first analyzing the story of the established writers and then applying the knowledge gained to the student's own work. Major emphasis placed on individual development as a creative writer.

Wr 242 Intro. to Imaginative Writing
3 class hrs/wk 3 cr. W

A course in poetry writing which introduces the student to major concerns of technique and form by studying the writing of accomplished poets and experimenting with these discoveries in his own writing. Major emphasis is placed upon the development of individual work.

Wr 243 Intro. to Imaginative Writing
3 class hrs/wk 3 cr. Sp

An advanced course in style and technique designed to intermix studies of poetry and fiction in such a manner as to complement each other. Major emphasis will be placed upon revision of work in progress. The course is conducted in a workshop fashion. Prerequisite: Wr 241 or Wr 242.

0.544 Writing for the Popular Market
3 class hrs/wk 3 cr. Sp

This course considers the basics of fiction writing as they relate to the popular markets; classifications of the short story; a survey of current trends in publishing; market requirements; manuscript preparation. No text. Evaluation of student work is made through class discussion, assignments, and editing of student work by the instructor.

0.550 Writing for Children and Teenagers
3 class hrs/wk 3 cr. F

This course will aid the fiction writer who has already learned the fundamentals to further perfect his craft. Emphasis will be on production or marketable manuscripts. Students' stories will receive group criticism from the class and written critiques from the instructor.

0.553 Introduction to Playwriting
3 class hrs/wk 3 cr. W

This course will deal with the elements of dramatic writing (dialogue, setting, characterization, and conflict) by first analyzing the plays of established writers and then by applying the knowledge gained to the students' own work. Major emphasis will be placed upon the development of student work.

FOREIGN LANGUAGE

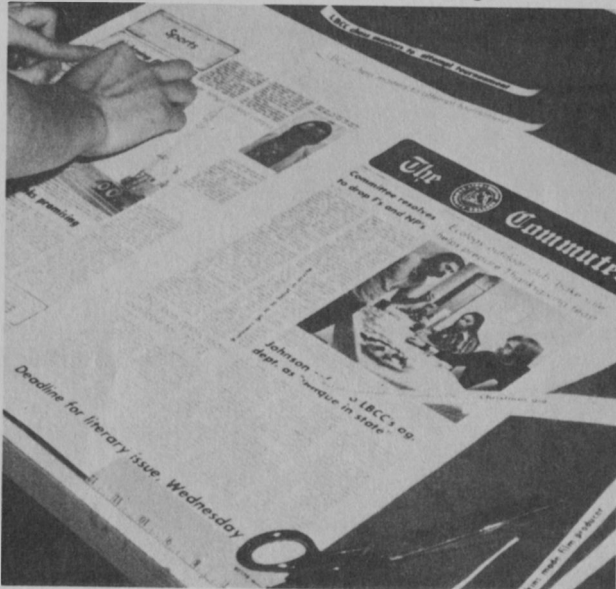
RL 50, 51, 52 First Year French
 5 class hrs/wk 4 cr. F/W/Sp

An introduction to French, stressing listening, speaking, reading, and writing. Exercises in elementary grammar and composition. A minimum of one hour language laboratory practice per week is required in addition to scheduled lectures.

JOURNALISM

JN9.025 Journalism
 3 class hrs/wk 3 cr. F/W/Sp

A three hour non-transfer activity course which produces "The Commuter", a weekly publication of the associated students of Linn-Benton Community College.



LITERATURE

Eng 104 Introduction to Literature
 3 class hrs/wk 3 cr. Sm/F/W/Sp

An introduction to the art of narrative fiction (the short story and the novel) through a careful reading and discussion of numerous American, English and European short stories and a novel, all of which serve as outstanding examples of the genre.

Eng 105 Introduction to Literature
 3 class hrs/wk 3 cr. F/W/Sp

An introduction to drama as it was developed in ancient Greece and transmitted to successive historical periods up to the present time. The course introduces the student to Greek, Medieval, Shakespearian, and modern plays. It stresses conventions of drama as they developed in succeeding historical periods.

Eng 106 Introduction to Literature
 3 class hrs/wk 3 cr. Sm/F/W/Sp

The study of poetry and the nature of literary experience through the reading of great poetry, drawn from American, English, and world literature. Works are read in entirety when possible with emphasis on such elements as structure, style, imagery, figurative language, and musical devices.

Eng 101, 102, 103 Survey of English Literature
 3 class hrs/wk 3 cr. F/W/Sp

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.

Eng 107, 108, 109 World Literature
 3 class hrs/wk 3 cr. F/W/Sp

A sequence to acquaint the student with outstanding works of ancient, medieval, Renaissance, and modern literature that have 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.

Eng 253, 254, 255 Survey of American Literature
 3 class hrs/wk 3 cr. F/W/Sp

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.

Eng 201, 202, 203 Shakespeare
 3 class hrs/wk 3 cr. F/W/Sp

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. (201) Histories; (202) Tragedies; (203) Comedies.

Eng 199 Literature of the Pacific Northwest
 3 class hrs/wk 3 cr. Sp

A study of significant, contemporary poetry and fiction writers of the Pacific Northwest. Provides an understanding and appreciation of both craft and prevalent themes represented in the work of the various authors studied.

SPEECH

Sp 111 Beginning Oral Communication
 3 class hrs/wk 3 cr. Sm/F/W/Sp

Designed to give the beginning student experience in varying types of oral communication (interpersonal interviews, public speaking, group discussion); speaking approaches (verbatim, note card, memorization, extemp.); and types of presentations (informative, persuasive, and impromptu). Small group teaching is stressed with the use of television playback for self-evaluation.

Sp 112 Intermediate Oral Communication
 3 class hrs/wk 3 cr. F/W/Sp

Leadership skills, organization of meetings and small group discussion, concepts of the persuasive speech for small group situations and debate, job interviews, vocabulary and pronunciation. Small group teaching is stressed with the use of television playback for self-evaluation. Prerequisite: Sp 111.

Sp 113 Advanced Oral Communication
 3 class hrs/wk 3 cr. F/W/Sp

Concepts and practical work in various types of formal debate. Emphasis is placed upon content and presentation, as well as effective use of the voice. Small group teaching is stressed with the use of television playback for self-evaluation. Prerequisite: Sp 112.

Sp 229 Interpretive Reading
 3 class hrs/wk 3 cr. F/W/Sp

Theory of and practical work in dramatic reading (prose, poetry, plays, song lyrics), and voice effectiveness. Especially recommended for those interested in voice, singing, and primary-grade teaching. Small group teaching is stressed with the use of television playback for self-evaluation.

Sp 248, 249, 250 Theatre Courses
 See Humanities Division, Performing Arts.

PERFORMING ARTS

The Performing Arts curriculum is designed to provide skill building opportunities in vocal, and instrumental music and in dramatic presentation as well as to develop aesthetic appreciation and theoretical knowledge of these subjects. The majority of classes are designed to satisfy lower division college transfer requirements for those students seeking the bachelor's degree, but offer as well professional instruction for those students whose interests are primarily vocational or avocational. All theatre classes offer college transfer credit.

MUSIC

Mu 111, 112, 113 Music Theory I
4 class hrs/wk 4 cr. F/W/Sp

Work in the elements of music science (melodic, harmonic, and rhythmic) taught through analysis of the styles of Bach, Haydn, Mozart, and other eighteenth and nineteenth century composers. Must be taken in sequence.

Mu 201, 202, 203 Intro. to Music and Its Literature
3 class hrs/wk 3 cr. F/W/Sp

Cultivation of understanding and intelligent enjoyment of music through a study of its elements, forms, and historical styles. (201) Music Forms, (202) Middle Ages to Classical, (203) Romantic to contemporary. Need not be taken in sequence.

Mu 180 Class Lessons in Guitar
2 class hrs/wk 1 cr. F/W/Sp

A classroom instruction situation that deals with individual problems to the extent possible. Designed for beginning and intermediate students.

Mu 190 Performance Studies
1 class hr/wk 1 cr. F/W/Sp

Basic individual instruction in voice (popular or classical), piano, woodwinds, brass, percussion, stringed instruments. \$37.00 additional tutorial tuition.

Mu 290 Performance Studies
1 class hr/wk 1 cr. F/W/Sp

Advanced individual instruction in the technical and stylistic aspects of artistic solo performance. \$37.00 additional tutorial tuition.

Mu 197(C) Chorus (Concert Choir)
2 class hrs/wk cr./3 cr. max. F/W/Sp

A performance oriented class, practice in performance material as well as music that presents different problems and styles in singing.

Mu 297 (C) Chorus (Concert Choir)
2 class hrs/wk 1 cr./3 cr. max. F/W/Sp

Advanced opportunities in concert choir. Prerequisite: Mu 197C.

Mu 197(S) Chorus (Swing Choir)
3 class hrs/wk 2 cr./6 cr. max. F/W/Sp

Performance of popular vocal arrangements. Exploration of various swing choir concepts. Audition required for enrollment.

Mu 297(S) Chorus (Swing Choir)
3 class hrs/wk 2 cr./6 cr. max. F/W/Sp

Advanced opportunities in swing choir. Audition required for enrollment. Prerequisite: Mu 197S.

0.520.6-8 Musicianship I, II, III
3 class hrs/wk 3 cr. F/W/Sp

A study in the theory and practice of musical notation, reading and writing rhythmic and melodic patterns. (0.520.6) Musical notation and ear training, (0.520.7) Reading rhythmic and melodic patterns, (0.520.8) Writing rhythmic and melodic patterns. Must be taken in sequence.

0.522.2 Stage Band
2 class hrs/wk 1 cr. F/W/Sp

Open to all students with reasonable proficiency on a band instrument. To offer rehearsal and performance opportunities in concert, pep, and stage band literature. Music selected will vary depending on the instrumentalization of the class and the proficiency of the students.



THEATRE

SP 248 Fundamentals of Acting
 3 class hrs/wk 3 cr. **F**

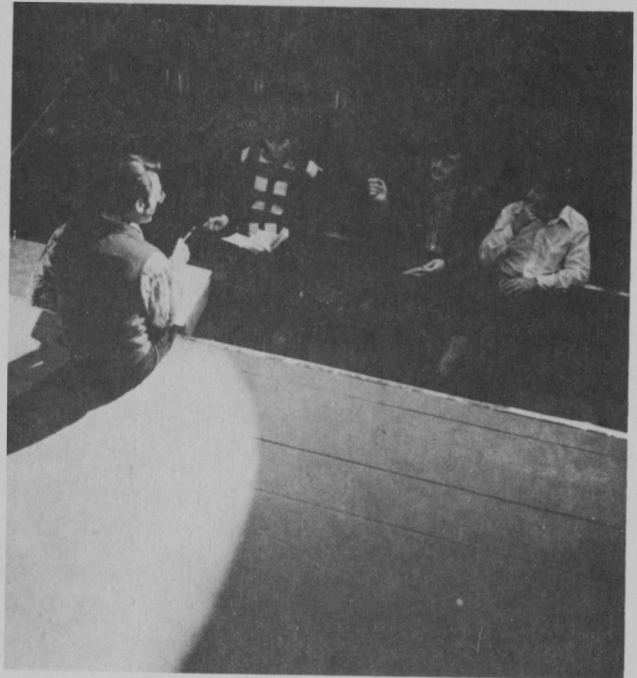
Basic stage theory — division of the stage, basic movement, why, what, where, when, script preparation, basic concepts of directing. Practical exercises in scene preparation with team acting experience before audiences. Extensive instructional critiques.

SP 249 Stagecraft
 3 class hrs/wk + lab 3 cr. **W**

Principles of acting, directing, technical theatre costume, make-up. Students may concentrate in area of interest. Seminar type instruction provides theory and skill-building opportunities. Practical stage experience may be available in cooperation with community civic theatre.

SP 250 Theatre Workshop
 3 class hrs/wk + lab 3 cr. **Sp**

Students participate under a repertory concept (all facets of staging a production) with a public performance of a play as the final objective of the course. Prior experience in Sp 248 and/or Sp 249 is preferred but not required.



VISUAL ARTS

The Visual Arts curriculum is designed to promote the student's flexibility in communicating expressive ideas through art and to increase his ability to recognize historic influences in his own and other's work. Two distinct but related curricula exist: fine arts and graphic arts. The fine arts curriculum offers a wide variety of studio courses which are fully transferable, but which also have significant value as creative, avocational activities for the non-transfer student. The graphic arts curriculum is designed to develop specific occupational skills in commercial art and graphic production technology.

Grading in the Fine Arts: Students have the option of taking all fine arts classes for letter grade, for a pass or no-pass grade, or auditing with no formal evaluation of any kind.

Art 101 Weaving
 2 lec/4 lab 3 cr. **F**

Introduction to techniques of construction with fiber through experiences in weaving, macrame, stitchery. Emphasis placed on design considerations.

Art 102 Textile Design
 2 lec/4 lab 3 cr. **W**

Introduction to processes of printing on fabrics through tie-dye, batik, block printing, silk screen, and combined media. Techniques presented with emphasis on design considerations.

Art 103 Basic Craft Techniques
 2 lec/4 lab 3 cr. **Sp**

Introduction to techniques of the crafts with emphasis on design and inventive use of media.



Art 201, 202, 203 Survey of Visual Arts
 3 class hrs/wk 3 cr. F/W/Sp

A three quarter sequence class of the history, aesthetics, and significance of the visual arts as they reveal man's concepts of his place in time and space; includes related contemporary thought in the fields of anthropology, religion, psychology and media studies. (201) Art origins; (202) Christain era to Industrialization; (203) Modern. Sequence preferred but not necessary.

Art 195 Basic Design
 2 lec/4 lab 3 cr. F/W/Sp

An introduction to the design field through a study of art elements and principles and the visual and psychological aspects of color. Students will explore applications; emphasis will be on developing sound judgment and individual creative growth.

Art 196 Applied Design
 2 lec/4 lab 3 cr. W/Sp

Design experiences in specific fine arts areas through applications of basic design skills. Prerequisite: Art 195.

Art 291 Drawing Fundamentals
 2 lec/4 lab 3 cr. F/W/Sp

An introduction to drawing still life and landscape using a variety of material and techniques; training in observation and selection of significant elements.

Art 281 Figure Drawing
 2 lec/4 lab 3 cr. Sp

An introduction to drawing the clothed and unclothed model using a variety of materials and techniques. Prerequisite: Art 291 or consent of instructor.

Art 282 Advanced Drawing
 2 lec/ 4 lab 3 cr. W/Sp

Advanced problems in drawing with greater emphasis on individual approaches in a variety of techniques and materials. Prerequisite: Art 291 or consent of instructor.

Art 290 Painting I
 2 lec/4 lab 3 cr. Sm/F/W/Sp

An introduction to the conventions of visual representation of a two-dimensional surface. Space division, color, and surface treatment with acrylic and oil paints are explored. This is a course designed for the inexperienced painter. It is preferred that the student is taking or has taken a drawing or design class.

Art 292 Watercolor Painting
 2 lec/4 lab 3 cr. Sm

An exploration of watercolor techniques in which subjects are to be taken from life, landscape, and imagination. It is preferred that the student has taken or is taking a drawing or design class.

Art 235 Jewelry and Metalsmithing
 2 lec/4 lab 3 cr. F/W/Sp

General introduction to use of tools involved in fabricating jewelry. Guidance in design. Demonstration of the major processes involved in the design and creation of jewelry and other metal fabrication. In depth study of lost wax casting. May be repeated once.

Art 270 Printmaking
 2 lec/4 lab 3 cr. F

An introduction to graphic multiple reproduction methods on a non-industrial basis; stencil, linoleum, wood-block, simple silk-screen, and intaglio techniques included. It is preferred that the student has taken or is taking a drawing or design class.

Art 296 Painting II
 2 lec/4 lab 3 cr. W/Sp

Further work in composition, surface, and color for the student who has had some painting experience. Individual vision is encouraged in a variety of expressions and techniques. Prerequisite: Art 290 or consent of instructor.





Art 293 Elementary Sculpture
2 lec/4 lab 3 cr. F

The course provides an understanding of 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.

Art 294 Art Metal Sculpture
2 lec/4 lab 3 cr. W/Sp

A course designed to teach oxy-acetylene and arc welding used in conjunction with metal sculpture. The various forms of metal sculpture techniques and related processes are discussed. Students design and build their own sculptures. Design, form, and texture are discussed and applied.

Art 255 Ceramics I
2 lec/4 lab 3 cr. Sm/F/W/Sp

An introduction to clay as an expressive and utilitarian material. The composition of clay bodies and the basic forming processes; slab, pinch, coil, press mold, and the potter's wheel. Emphasis is on form and surface treatment. Some firing and glazing included.

Art 256 Ceramics II
2 lec/4 lab 3 cr. Sm/F/W/Sp

Further work in clay for the somewhat-experienced student. Advanced and speciality construction; glazing and firing techniques. Prerequisite: Art 255 or consent of instructor.

GRAPHIC ARTS

Ga 3.150 Intro. to Graphic Communications
3 class hrs/wk 3 cr. F

An introduction to the means of graphic communication from the mass media through the specialized, in-house plant. Overview of the problems and practices associated with the commercial art, graphic reproduction technology, and journalism industries. Special consideration in relating graphics to modern typography. Form, content, and structure of visual advertising is stressed.

Ga 3.152 Graphic Prep. and Layout Design
2 lec/4 lab 3 cr. F/W

The preparation of mechanical art. The terminology and practice of layout, pasteup, headlines, and body copy. Use of headliner, body copy setter, lucigraph and related tools. Imposition, binding, diecutting, sealing and positioning of illustrative matter, the screen print of "Velox" reverse copy, screen tints, mechanical assembly, overlays, color preparation, the preparation of mechanical art and preparation of illustrations. Also included are line art, halftone art.

Ga 3.154 Merchandising and Display Design
2 lec/4 lab 3 cr. W

Introduction to merchandising and display projects involving two and three dimensional graphic, structural and marketing solutions; stressing suitability of concept, design, and color of the product. Point of sale, direct mail, editorial, window, point of purchase and other graphic design projects. Materials and methods of printing, cutting and folding are explored to elicit both tactile and visual expression.

Ga 3.156 Sign Painting and Show Card Design
2 lec/4 lab 3 cr. Sm

Study of types and uses of sign painting brushes, pens, inks, paints, and other materials. Exercises will build skill in a variety of lettering styles and techniques suitable for show cards, banners, exterior and general bulletin work.

Ga 3.158 Advertising Typography
2 lec/4 lab 3 cr. F

Type layout and design. Hand lettering for the artist is studied on the basis of standard and unusual type faces, number and letter forms. Finished production lettering, type specifications and indications and calligraphy as an element of typographical design. The use of the phototypesetter, phototype, and the new transfer lettering sheets are studied.

Ga 3.162 Photography I
2 lec/4 lab 3 cr. F/W/Sp

Basic photography slanted toward graphic communications. Use of camera, framing, subject matter, lighting and exposure, black and white processing, enlarging, papers, films, photo linen, and printing techniques are studied and applied. Class assignments and critiques.

Ga 3.163 Photography II
2 lec/4 lab 3 cr. W/Sp

The use of the camera in commercial advertising photography. Photography dark room techniques and reproduction processes. Making stats, color separations, reversals, direct positives and special processes. Half tone screening of negatives. Introduction to opaquing, scribing, stripping, and platemaking. Prerequisite: Photography I or consent of instructor.

Ga 3.166 Graphic Production I
2 lec/4 lab 3 cr. W

Introduction to graphic production techniques with special emphasis on letterpress, silk screen, and screenless processes. Students engage in type setting, makeup, make-ready, and lock-up activities. Practice in silk screen printing and imagery by various techniques. Introduction to screenless printing techniques by involving collotype and optak processes, and the dry offset process. Assigned projects and critiques.

Ga 3.167 Graphic Production II
2 lec/4 lab 3 cr. Sp

Introduction to the theory and practice of offset lithography. Preparation of the lithographic negative, stripping and opaquing. Lithographic plates, duplicates, conversions. Press operation, inks, and water systems. Project assignments and critiques. Prerequisite: Photography II or consent of instructor.

Ga 3.168 Graphic Production III
2 lec/4 lab 3 cr. Sp

Advanced theory and practice of offset lithography. Special emphasis is given simple process and multi-color reproduction. Skill building in ink mixing, plate and blanket packing and register. Students do their own photography, drawing, negatives, strip their work, make and develop plates and print projects on a variety of papers. Prerequisite: Graphic Production I or consent of instructor.

Ga 3.170 Art Tools and Their Application
2 lec/4 lab 3 cr. F

The use of the artists' tools. Pen and ink, brushes, water colors, designers gouache, markers, inks, fixatives, colored pencils, washes, compass, rapidographs, air brush, drying equipment, pastels, matt knives, tapes, drafting machines, pencil pointers, templates, acrylics. Weekly class projects explore and develop skill in using the artist's tools. The course intent is to make the student aware of the techniques used by the commercial artist.

Ga 3.172 Commercial Illustration I
2 lec/4 lab 3 cr. W

A basic course in illustration for reproduction. Weekly projects explore the various methods and techniques of commercial illustration. The preparation of illustrated

matter including visual instruction materials. Students may specialize in their chosen area of interest. Layout and design are of primary intent. Matting, framing presentation, papers, board, effects, are all discussed. Prerequisite: Art Tools and Their Application or consent of instructor.

Ga 3.173 Commercial Illustration II
2 lec/4 lab 3 cr. Sp

An advanced course in commercial illustration. Layout and design and effects of color on various subjects are included. Proposed use for reproduction is of prime consideration. Projects cover a wide application of materials, techniques, and styles. Students may choose their area of interest. Prerequisite: Commercial Illustration I or consent of instructor.

Ga 3.180 Publications Lab
3 lab hrs/wk 1 cr. F/W/Sp

Students select either the newspaper or the literary-fine arts publication lab to gain practical experience in the application of graphic arts skills. Required each term. Maximum of 6 credits.

Ga 3.181 Production Lab
3 lab hrs/wk 2 cr. Sm/F/W/Sp

Students whose primary interest is in graphic production technology may select the Graphics Department of the LRC to gain practical experience with hands-on operation of offset presses and associated graphic equipment. Maximum of 6 credits. Prerequisite: Graphic Production II.

PHILOSOPHY

The Philosophy curriculum is designed to provide an awareness and understanding of civilized man's ethical, moral, and religious thought and the process of his ability to reason critically. All courses carry college transfer credit.

PH 201 Problems of Philosophy
3 class hrs/wk 3 cr. F

An introduction to some of the basic questions of philosophy and a study of the ways in which these problems have been treated. The study includes readings from most of the important philosophers.

PH 202 Elementary Ethics
3 class hrs/wk 3 cr. W

An introduction to the study of morality. Deals with questions of right, free will, duty, good, etc. Some major ethical systems will be used.

PH 203 Elementary Logic
3 class hrs/wk 3 cr. Sp

An introduction to the study of logical understanding. Emphasis will be placed upon recognizing, analyzing and criticizing various arguments and proofs.

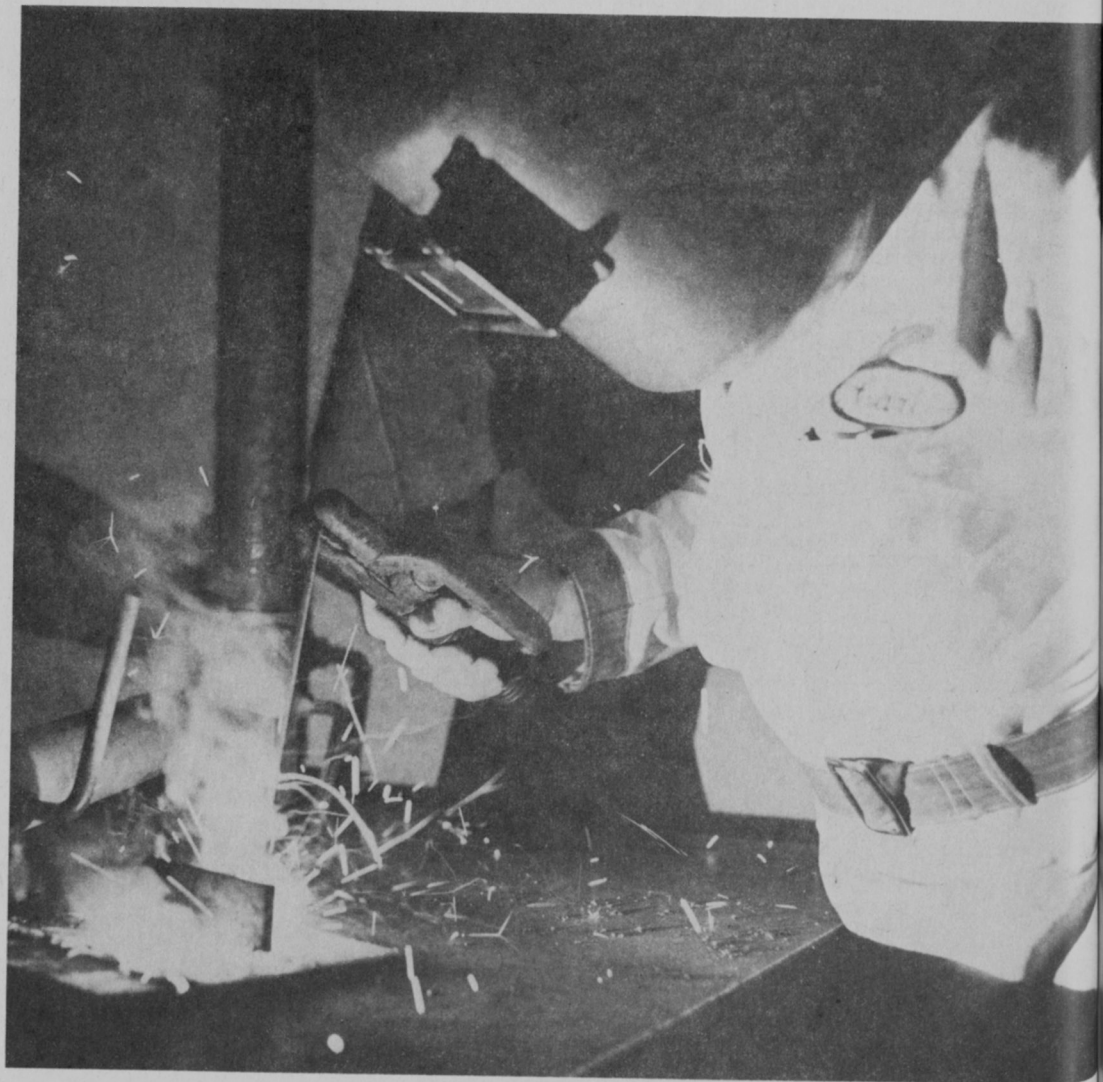
PH 204 Philosophy of Religion
3 class hrs/wk 3 cr. Sp

An introduction to the philosophical analysis and justification of religious claims and concepts, e.g., God, the soul, immortality.

Industrial Technology Division

The world of industrial technology has experienced many changes in recent years; 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.



CHAIRMAN:

James Suddreth

FACULTY:

John Alvin, Coordinator-Welding
 Ray Borrall, Environmental Technology
 David Carter, Coordinator-Automotive Technology
 John Carnegie, Environmental Technology
 John Griffiths, Coordinator-Machine Tool Technology
 Dale Herren, Environmental Technology
 Eugene Hysmith, Auto Body Repair Technology
 L. Carl Love, Coordinator-Metallurgy
 David Miller, Drafting
 Keith Pond, Automotive Technology
 James Reynolds, Coordinator-Drafting
 Elwyn Stewart, Welding
 K.C. Stoakes, Environmental Technology
 Larry Thornton, Coordinator-Auto Body Repair Tech.
 John Wooley, Environmental Technology

PROGRAMS**TWO YEAR ASSOCIATE IN SCIENCE DEGREE PROGRAMS**

Auto Mechanics
 Drafting Technology
 Environmental Technology
 Machine Tool Technology
 Metallurgical Technology
 Wastewater Technology

ONE YEAR PROGRAMS

Auto Body Repair leading to a Certificate of Completion
 Wastewater Treatment Plant operation leading to a Certificate of Completion
 Welding leading to a Certificate of Completion

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.

STATE-WIDE SEWAGE TREATMENT PLANT OPERATORS UP-GRADING PROGRAM

This program is designed to upgrade the knowledge and skills of sewage treatment plant operators. It is being offered by LBCC with the endorsement of the Department of Environmental Quality. 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 units of instruction offered over a two year period. Each unit will be built around a three to five day short course at Linn-Benton Community College. 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, an annual meeting with group seminars and critique sessions 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 unit of instruction or up to all eight units, depending upon the individual needs and desires.

In addition, LBCC will provide the trainees with the opportunity to earn an Associate of Science degree in wastewater technology if he satisfactorily completes all eight units 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.

**6.143 Primary Treatment Processes
10 credits**

Short school includes discussion of History of Wastewater Treatment; Environmental Responsibilities; Collection Systems, construction and maintenance; Characteristics and Properties of Wastewater; Chlorination, Theory and Practice; Sedimentation; Flow Measurement, Grit Removal, Pumps and pumping; Laboratory Techniques for Primary Processes; Operational Mathematics.

**6.144 Secondary Treatment Processes
10 credits**

Course includes discussion of Activated Sludge Processes; Trickling Filters; Oxidation Ponds; Aerobic Digestion processes; Anaerobic Sludge Digestion, Chlorination, Laboratory Techniques for Secondary Processes; Operational Mathematics.

6.145 Mechanical Aspects of Treatment Plant Operations & Plant Safety 10 credits

Course includes discussion of construction, operation and maintenance of: Pumps and motors, meters and control devices, air blowers and diffusers, digester mixes, comminutors, gas handling equipment, drive lines and couplers, chlorination equipment and valves. Also discussed will be maintenance records and plant safety.

**6.146 Operators Seminar
10 credits**

The seminar involves review of first three units with analysis and discussion of all subjects as they apply to the individuals own plant. In addition, the trainees will be given a comprehensive project related to his plant which covers all aspects of treatment.

6.147 Supervisory Training & Bus. Mgmt.

Short course includes Elements of Supervision; Personnel Relations; Communication Skills; Record Keeping; Budgeting and Cost Analysis.

**6.148 Advanced Treatment Processes
10 credits**

Course includes discussion of Future Trends in Wastewater Treatment; Up-grading Secondary Plants to include Phosphate Removal; Techniques of Sludge Handling and Disposal; Mixed Media and Charcoal Filters; Chemical Coagulation and Flocculation; Ammonia removal; Phosphate removal, Electrodialysis, Reverse Osmosis; Ion Exchange; Biological Nutrient Removal Processes, Introduction to Analytical Instrumentation; and Advanced Laboratory Techniques.

**6.149 Laboratory Analysis
10 credits**

The course will involve a review of Basic Chemistry Biology and Laboratory Mathematics. All wet chemistry and biological tests used in treatment plants will be discussed, stressing theory and technique. Old and new instrumentation will be studied.

**6.150 Application Seminar
10 credits**

The seminar covers a review and analysis of materials covered in the second year. In addition, the trainee will be given a comprehensive study project involving his plant operations and concerning proposal for improved treatment.

WASTEWATER TECHNOLOGY

The Wastewater Technology curriculum is structured to develop graduates who will be 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

Course No.	Course Title	Sm	F	W	Sp
1.112	Technical Report Writing				3
4.205	Basic Chemistry I		4		
4.206	Basic Chemistry II			4	
6.101	Intro. to Environmental Tech. I		3		
6.114	Sanitary Microbiology I		4		
6.115	Sanitary Microbiology II			4	
6.120	Principles of Ecology I				3
6.151	Wastewater Technology I			4	
6.152	Wastewater Technology II				4
6.173	Sanitary Chemistry I				3
6.261-3	Technical Math I, II, III		4	4	4
PE 190	Physical Education				1
			16	16	17

SOPHOMORE YEAR

Course No.	Course Title	Sm	F	W	Sp
1.124	American Institutions		3		
6.153	Wastewater Technology III		4		
6.154	Wastewater Technology IV			4	
6.155	Wastewater Technology V				4
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	
PE 190	Physical Education		1	1	
6.168	In Plant Practicum	10			
HE 250	Personal Health		2		
1.101	Communication Skills I		3		
1.102	Communication Skills II				3
1.606	Intro. to Psy. & Human Relations			3	
		10	16	16	16

6.114 Sanitary Microbiology I F
6 class hrs/wk 4 cr.

This course will enable the student to describe the chemical structure of organic macro-molecules, to describe 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 and isolation of bacteria; disinfection and sterilization techniques. Competence in the identification of bacteria through the use of Gram's stain and IMViC staining techniques will also be developed.

6.115 Sanitary Microbiology II W
6 class hrs/wk 4 cr.

This course will enable the student to identify and describe the characteristics of microorganisms associated with wastewater treatment processes, identify 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. Prerequisite: Sanitary Microbiology I.

6.151 Wastewater Technology I W
6 class hrs/wk 4 cr.

An introduction to the processes of a composite model sewage treatment plant including math, hydraulics and electrical energy as it applies to individual process units. Prerequisite: Introduction to Environmental Technology.

6.152 Wastewater Technology II Sp
6 class hrs/wk 4 cr.

A continuation of Wastewater Technology I. Prerequisite: Wastewater Technology I.

6.153 Wastewater Technology III F
6 class hrs/wk 4 cr.

A specialized approach to the treatment process, abnormal conditions, tools and maintenance. Prerequisite: Wastewater Technology II and In Plant Practicum.

6.154 Wastewater Technology IV W
6 class hrs/wk 4 cr.

A continuation of Wastewater III. Prerequisite: Wastewater Technology III.

6.155 Wastewater Technology V Sp
6 class hrs/wk 4 cr.

A study of special processes, advanced treatment and operator certifications. Prerequisite: Wastewater Technology IV.

6.158 Sanitary Seminar I W
1 class hr/wk 1 cr.

A program of involvement designed to acquaint the student with resources for personal and professional growth within the Wastewater industry. Prerequisite: Wastewater Technology III.

6.159 Sanitary Seminar II Sp
1 class hr/wk 1 cr.

The student will prepare a presentation, in layman's language, on the operational processes of a wastewater treatment plant and its role in the life of the community for delivery at a public meeting. Prerequisite: Wastewater Technology I and Sanitary Seminar I.

6.161 Wastewater Management I W
4 class hrs/wk 4 cr.

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 Sp
4 class hrs/wk 4 cr.

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 plant 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 Sp
6 class hrs/wk 4 cr.

Using skills developed from previous courses and data obtained during plant work experience students will prepare and submit a simulated annual operations report. Prerequisite: Wastewater Technology IV, Wastewater Management I, and In Plant Practicum.

6.168 In Plant Practicum I
40 class hrs/wk 10 cr. Sp

Practicum consists of full time work in a wastewater treatment plant. Skills and knowledge developed in prerequisite courses will be combined with on the job training by both plant supervisory personnel and LBCC visiting instructors. Prerequisites: Wastewater Technology II, Sanitary Microbiology II, Sanitary Chemistry I.

6.174 Sanitary Chemistry I
5 class hrs/wk 3 cr. Sp

This course will enable the student to perform the following tests on wastewater: settleable solids, suspended and volatile solids, pH, dissolved oxygen, biochemical oxygen demand, chlorine residual, and temperature. Prerequisite: Basic Chemistry I and II.

6.175 Sanitary Chemistry II
5 class hrs/wk 3 cr. F

This course will enable the student to perform the following tests on wastewater and wastestream: chemical oxygen demand, sludge tests - volatile, suspended, and settleable solids, sludge volume index, sludge density index, sludge age, sludge filterability, total acidity on wastestreams, alkalinity, volatile acids, chloride ion, and chlorine requirement.

6.176 Sanitary Chemistry III
5 class hrs/wk 3 cr. W

This course will enable the student to perform the balance of laboratory tests on the wastestreams 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, CO₂, H₂S, CH₄, grease, pH, (potentiometric, conductivity, dissolved oxygen (by meter) and BOD-ultimate (Warburg procedure.) Prerequisite: Sanitary Chemistry I and II.

GENERAL INDUSTRIAL TECHNOLOGY

3.425 Employment Search Technique
1 class hr/wk 1 cr. Sp

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 cr. Sp

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 cr. F

An introductory course concerned with principles and applications of electricity in industry. Studies are made of the properties of conduction 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 cr. Sp

A survey of the principles of safety in industry including safety codes, personnel considerations and safety practices relating to machine design, materials handling and safe equipment operation and maintenance. An attempt is made to decrease the num-

ber of accidents along with an emphasis towards reducing the seriousness when an accident does happen.

4.120 Fundamentals of Specifications
5 class hrs/wk 3 cr. Sp

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 class-work to industry.

4.127 Industrial Practices
5 class hrs/wk 3 cr. F

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 cr. F

A basic machine tool operations course. Introducing the student to the principles involved in the operating of the basic machine tools, engine lathe, drill press, grinder and milling machine.

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

Course No.	Course Title	Sm	F	W	Sp
3.511	Auto Body Repair I		12		
3.512	Auto Body Repair II		12		
3.513	Auto Body Repair III				12
4.151	Welding I		3		
4.152	Welding II			3	
PE 180/190	Physical Education		1	1	1
PE 252	First Aid				3

SUGGESTED ELECTIVES

3.308	Fund. of Auto Electricity		3		
4.108	Industrial Safety				2
4.202	Industrial Math II			4	
			16	16	16

SOPHOMORE YEAR

Course No.	Course Title	Sm	F	W	Sp
3.514	Auto Body Repair IV	12			
3.515	Auto Body Repair V		12		
3.516	Auto Body Repair VI			12	
4.202	Math II			4	
1.524	Applied Economics	3			
1.101	Communication Skills I	3			
1.102	Communication Skills II		3		
HE 250	Personal Health			2	
		18	17	16	

SUGGESTED ELECTIVES

1.112	Technical Report Writing		3		
2.110	Principles of Salesmanship				3
2.515	Business Mathematics	3			

AUTO BODY REPAIR

Students registering for Auto Body Repair Block will progress at their own pace through the six courses comprising the Auto Body Program. Grades and credits will be issued only for levels achieved by the end of the quarter.

3.511 Auto Body Repair I 25 class hrs/wk 12 cr. Sm/F/W/Sp

This course provides instruction concerning auto body and chassis construction, procedures of metal working, assembly and dis-assembly of components, alignment practices, preparation of vehicle surfaces, use of solder and plastic materials, application of primer and spray painting surface finishes. Instruction of 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.

3.512 Auto Body Repair II 25 class hrs/wk 12 cr. Sm/F/W/Sp

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. 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.

3.513 Auto Body Repair III 25 class hrs/wk 12 cr. Sm/F/W/Sp

Minor collision damage repair, alignment of doors, fenders, hood and truck 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. Instruction in replacement of glass, moulding, 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.

3.514 Auto Body Repair IV 25 class hrs/wk 12 cr. Sm/F/W/Sp

Principles of conventional and unitized frame member construction and alignment. Instruction in straightening frame damage, replacing necessary members tramping, heating, and methods of damage correction. Principles of steering geometry and front system alignment and alignment of sheet metal. Introduction to door and panel replacement including sectioning, sanding, priming, and painting.

3.515 Auto Body Repair V 25 class hrs/wk 12 cr. Sm/F/W/Sp

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. Principles of estimating all collision damage, appearance re-conditioning 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. Instruction is also given in customer relations, cost accounting and analysis and employee payment plans.

3.516 Auto Body Repair VI 25 class hrs/wk 12 cr. Sm/F/W/Sp

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. Principles of insurance claim handling techniques, policies coverage 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 automotive service and repair field. An Associate in Science Degree will be awarded to those who successfully complete the two year program.

FRESHMAN YEAR

Course No.	Course Title	Sm	F	W	Sp
3.308	Fund. of Auto Electricity	3			
3.334	Internal Combustion Engines	3			
3.335	Auto Electricity		6		
3.350	Selling Principles & Techniques			3	
3.364	Fuels & Carburetion**	3			
3.370	Auto Brakes			3	
4.151	Welding I		3		
4.152	Welding II			3	
4.202	Math II		4		
4.204	Math III			4	
4.130	Machine Processes			3	
HE 250	Personal Health	2			
1.101	Communication Skills I	3			
4.100	Blueprint Reading & Sketching	2			
1.500	Employer Employee Relations	On Demand			
Elective			3		
		16	16	16	

**Prerequisite to Tune Up and Diagnosis 3.324



SOPHOMORE YEAR

Course No.	Course Title	Sm	F	W	Sp
1.102	Communication Skills II		3		
1.606	Intro. to Psychology		3		
3.324	Tune Up and Diagnosis				3
3.278	Transmission I				3
3.280	Transmission 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		
3.360	Auto Machine Shop		3		
3.375	Heat Exchangers & Air Control		3		
4.300	Practical Physics I				4
4.302	Practical Physics II	4			
PE 190	Physical Education	1	1		1
		14	16		14

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

This program may be started in the Summer OR Fall terms.

3.278 Transmissions I
 6 class hrs/wk 3 cr. F/Sp

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, transfer cases and power take-off's.

3.280 Transmissions II
 6 class hrs/wk 3 cr. Sm/W

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 cr. F/Sp

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-off's.

3.292 Chassis II
 6 class hrs/wk 3 cr. Sm/W

Fundamental principles of automotive suspension systems are studied, with emphasis upon front end alignment, wheel balancing, steering systems and frames.

3.308 Fundamentals of Automotive Electricity
 3 class hrs/wk 3 cr. Sm/F

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 cr. W/Sp

A problem-solving course of the lecture-demonstra-

tion-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 cr. Sm/W

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 cr. F/Sp

A continuation of Automotive Repair Practices I.

3.334 Internal Combustion Engines
 12 class hrs/wk 6 cr. Sm/F

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 cr. F/W

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 cr. W/Sp

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 cr. F/Sp

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 cr. Sm/F

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 cr. W/Sp

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 cr. F/Sp

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.



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 drafting 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

Course No.	Course Title	Sm	F	W	Sp
1.101	Communications Skills I		3		
1.102	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
6.540	Slide Rule		1		
6.551	Technical Math I		4		
6.552	Technical Math II			4	
6.553	Technical Math III				4
4.148	Practical Descriptive Geometry				2
9.053	Drafting Procedures			2	
3.494	Construction Methods & Materials				3
PE 190	Physical Education		1	1	1
			16	17	17

SOPHOMORE YEAR

Course No.	Course Title	Sm	F	W	Sp
1.124	American Institutions		3		
3.490	Applied Mechanics			3	
4.114	Architectural Drafting		4		
4.115	Presentation Drawing			2	
4.116	Architectural Planning			4	
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		
3.498	Product Design			2	
9.255	Commercial Art		2		
4.143	Prototype & Model Construction				2
HE 250	Personal Health				2
	Electives			2	3
			15	15	13

9.636 Blueprint Reading for the Construction Trades
 2 class hrs/wk 2 cr. On Demand

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 cr. F

Emphasis in this basic course will be placed on the interpretation of scale drawings, symbols, and the preparation of "on-the-spot" explanation sketches.

9.634 Drafting and Blueprint I
 4 class hrs/wk 2 cr. W/Sp

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.

9.635 Drafting and Blueprint II
 4 class hrs/wk 2 cr. On Demand

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 cr. F

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 cr. F

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 cr. W

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 cr. Sp

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 cr. F

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 cr. W

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 cr. W

An introductory course in residential and light commercial planning. A study will be made of architectural styles, orientation, site planning, kitchen plans, elevations, symbols, and specifications. Prerequisite: Drafting I or equivalent.

4.119 Machine Drafting
 8 class hrs/wk 4 cr. F

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 cr. W

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 equivalent.

4.123 Technical Illustration
7 class hrs/wk 3 cr. Sp

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 cr. Sp

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 cr. F

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: Technical Math II.

4.127 Industrial Practices
5 class hrs/wk 3 cr. F

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 cr. Sp

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 Technical Math II or equivalent.

9.053 Drafting Procedures
2 class hrs/wk 2 cr. W

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 cr. W

A course dealing with bodies in equilibrium under action by forces to develop an understanding of structural materials as subjected to conditions of tensile, compressive, and shearing forces. The magnitude and distribution of stresses are studied in materials common to the construction and manufacturing fields. Prerequisite: Technical Math III and Practical Physics.

3.494 Construction Methods and Materials
3 class hrs/wk 3 cr. Sp

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 cr. W

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.

9.051 Planning A Home
3 class hrs/wk 1 cr. On Demand

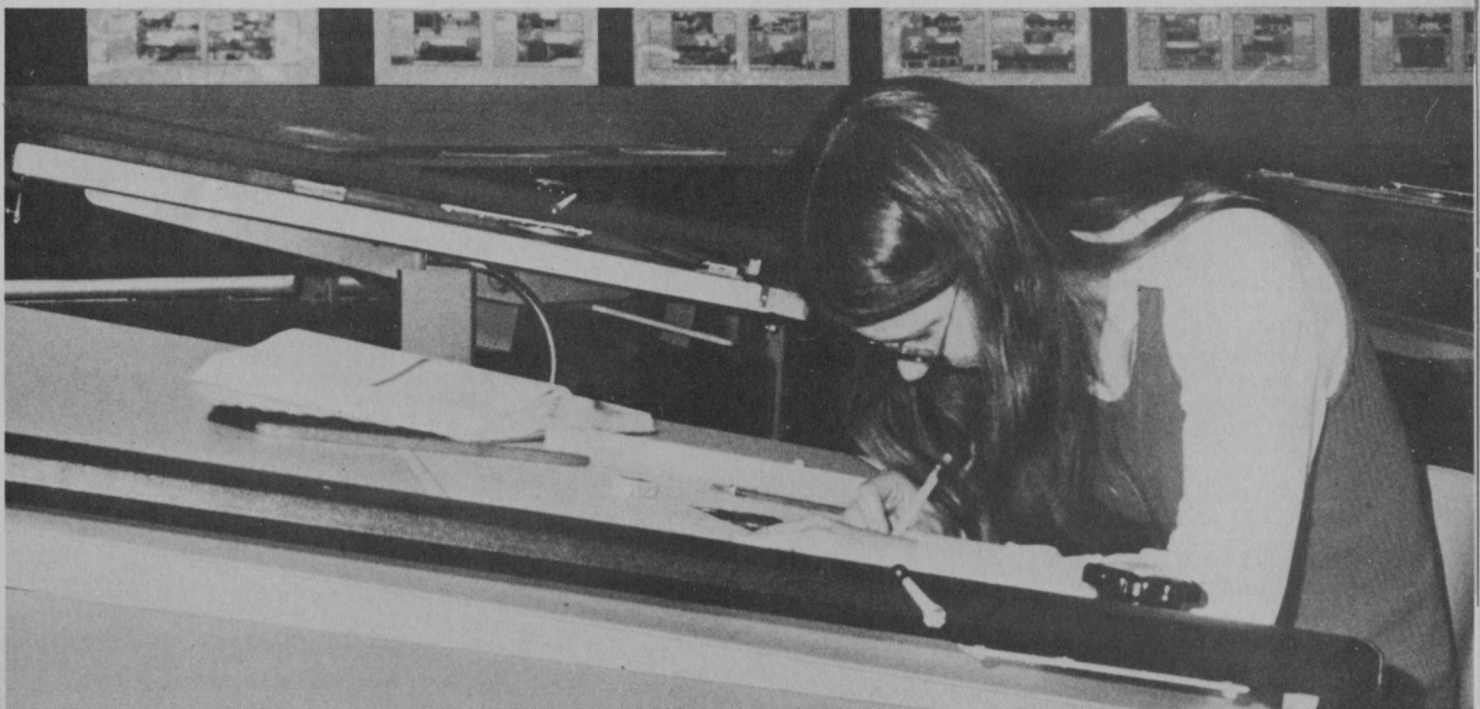
An introductory course for the person planning to build, which will introduce architectural styles, site planning, orientation, plan efficiency, kitchen planning, and basic architectural drafting procedures.

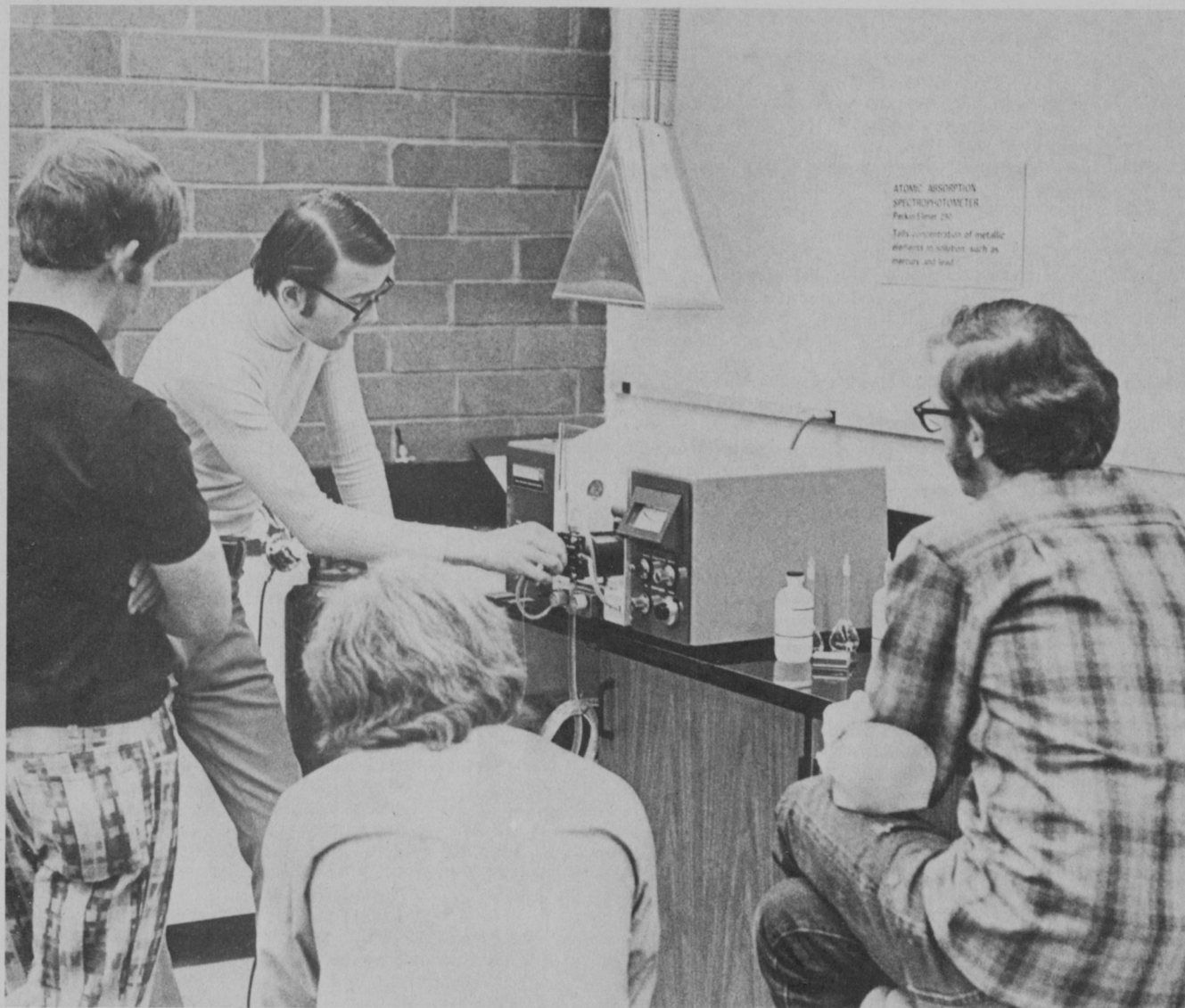
4.143 Prototype & Model Construction
4 class hrs/wk 2 cr. Sp

A course to introduce students to the skills and techniques involved in the production of models, and three-dimensional prototypes, as used by industry.

9.255 Commercial Art
2 class hrs/wk 2 cr.

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.





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

Course No.	Course Title	Sm	F	W	Sp
1.112	Technical Report Writing				3
1.606	Intro. to Psy. & Hum. Relations				3
4.205-6	Basic Chemistry I, II	4	4		

6.101	Intro. to Environmental Tech. I	3			
6.102	Intro. to Environmental Tech. II		3		
6.114	Sanitary Microbiology I	4			
6.120	Principles of Ecology		3		
6.200	Solid Waste Disposal				3
6.205	Seminar				2
6.551-3	Technical Math I, II, III	3	3	3	
He 250	Personal Health				2
PE 190	Physical Education				1
			14	15	15

SOPHOMORE YEAR

Course No.	Course Title	Sm	F	W	Sp
6.115	Sanitary Microbiology II				4
6.216	Prin. Trmt. Air, Water & Solid Waste I	4			
6.217	Prin. Trmt. Air, Water & Solid Waste II		4		
6.218	Prin. Trmt. Air, Water & Solid Waste III				4
6.226	Air and Water Analysis I	4			
6.227	Air and Water Analysis II				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 Tech. Problems I		4		
6.290	Environmental Tech. Problems II				4
1.101	Communication Skills I		3		
1.102	Communication Skills II				3
PE 190	Physical Education		1		1
			14	14	14

- 6.101 Introduction to Environmental Technology I**
3 class hrs/wk 3 cr. F
An introductory 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 cr. W
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 cr. Sp
A study of the basic fundamentals of ecology and some inter-relationships of man and his environment.
- 6.200 Solid Wastes Disposal I**
3 class hrs/wk 3 cr. Sp
A study of solid waste 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 cr. Sp
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 cr. F
A study of the theoretical and practical aspects of water and wastewater treatment units.
- 6.217 Principles of Treatment for Air, Water, & Solid Waste II**
6 class hrs/wk 4 cr. W
A study of the theoretical and practical aspects of air pollution control.
- 6.218 Principles of Treatment for Air, Water, & Solid Waste III**
6 class hrs/wk 4 cr. W
A study of the theoretical and practical aspects of solid waste disposal processes and their relationships to air and water pollution.
- 6.226 Air and Water Analysis I**
8 class hrs/wk 4 cr. F
A systemic study of laboratory procedures as applied to air and water analysis. The course is designed to provide the student with an 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 & Water Analysis II**
8 class hrs/wk 4 cr. W
A continuation of Air & Water Analysis I.
- 6.228 Air & Water Analysis III**
8 class hrs/wk 4 cr. Sp
A continuation of Air & Water Analysis II.
- 6.240 Air Pollution Control I**
2 class hrs/wk 2 cr. F
A study of the basic fundamentals of atmospheric pollution and control. Studies of the nature of polluting materials include gases, dusts, vapors, and fumes and their effects. Included will be a review of the legal authority of air pollution control.
- 6.241 Air Pollution Control II**
2 class hrs/wk 2 cr. W
Continuation of 6.240. This portion deals with the relation of atmospheric conditions to the dispersal of pollution materials, methods of analysis of polluting materials and methods of control.

- 6.242 Air Pollution Control III**
2 class hrs/wk 2 cr. Sp
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 cr. W
This course enables 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 cr. Sp
Continuation of 6.289. This portion is designed to develop field techniques needed to handle day-to-day problems encountered in environmental control.

6.114 Sanitary Microbiology I
6 class hrs/wk 4 cr. F
This course will enable the student to describe the chemical structure of organic macro-molecules, to describe 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 and isolation of bacteria; disinfection and sterilization techniques. Competence in the identification of bacteria through the use of Gram's stain and IMViC staining techniques will also be developed.

6.115 Sanitary Microbiology II
6 class hrs/wk 4 cr. W
This course will enable the student to identify and describe the characteristics of microorganisms associated with wastewater treatment processes, identify 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. Prerequisite: Sanitary Microbiology I.

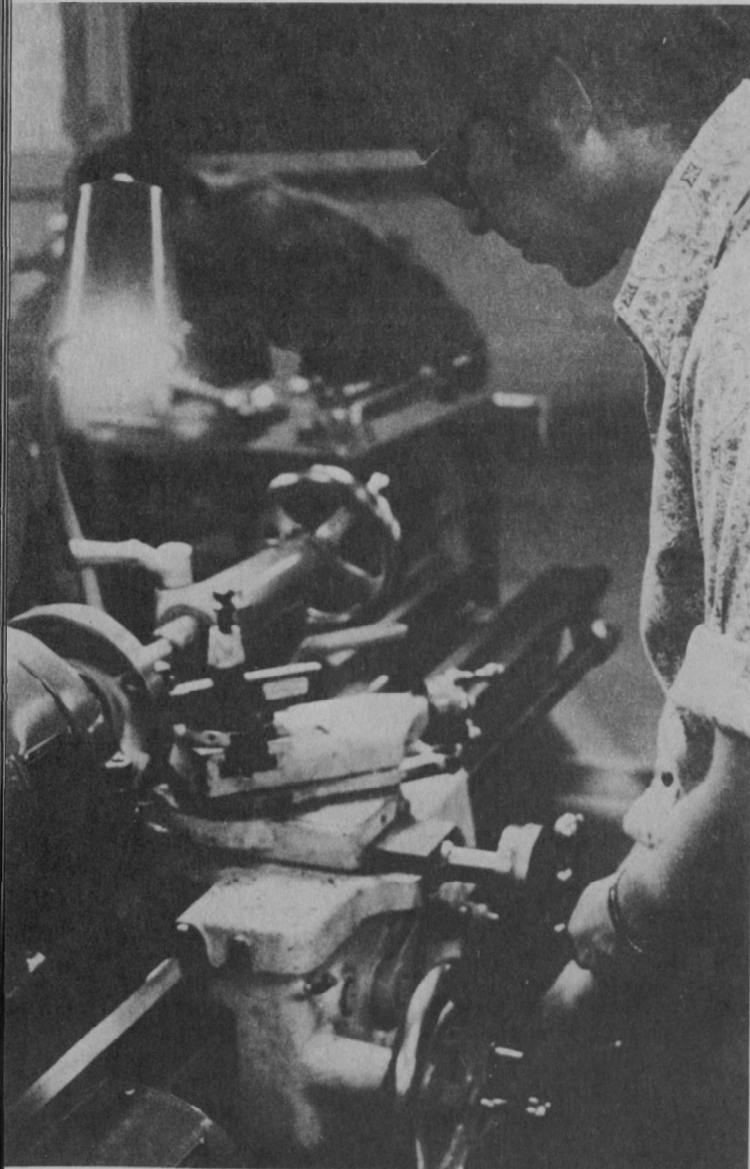


MACHINE TECHNOLOGY

Machine tool curriculum is designed to develop skills in a wide variety of machining processes including the operation of engine lathe, milling machine, 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.

FRESHMAN YEAR

Course No.	Course Title	Sm	F	W	Sp
3.403-5	Machine Tools I, II, III	10	10	10	10
4.100	Blueprint Reading and Sketching	2			
4.202, 204	Math II, III		4	4	
6.293	Introduction to Metallurgy	4			
6.540	Slide Rule		1	1	
		16 14 15			



SOPHOMORE YEAR

Course No.	Course Title	Sm	F	W	Sp
1.101, 102	Communication Skills I, II		3		3
1.124	American Institutions		3		3
3.406-8	Machine Tools IV, V, VI	10	10	10	
4.300	Practical Physics		4	4	
PE 190	Physical Education	1	1	1	
4.151	Welding I	3			
		14 16 15 11			

3.403 Machine Tools I
20 class hrs/wk 10 cr. Sm/F/W/Sp

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 cr. Sm/F/W/Sp

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 drill presses. Primary emphasis will be placed on lathe single point machining. 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 cr. Sm/F/W/Sp

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 and lathes 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 cr. Sm/F/W/Sp

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 will be assigned involving complex configurations and tracer lathe applications. Turning and boring are associated more closely with the supplemental operations. Increased emphasis is placed on industry accepted rates. Roughing and finishing operations are studied in depth. Milling machines, 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 cr. Sm/F/W/Sp

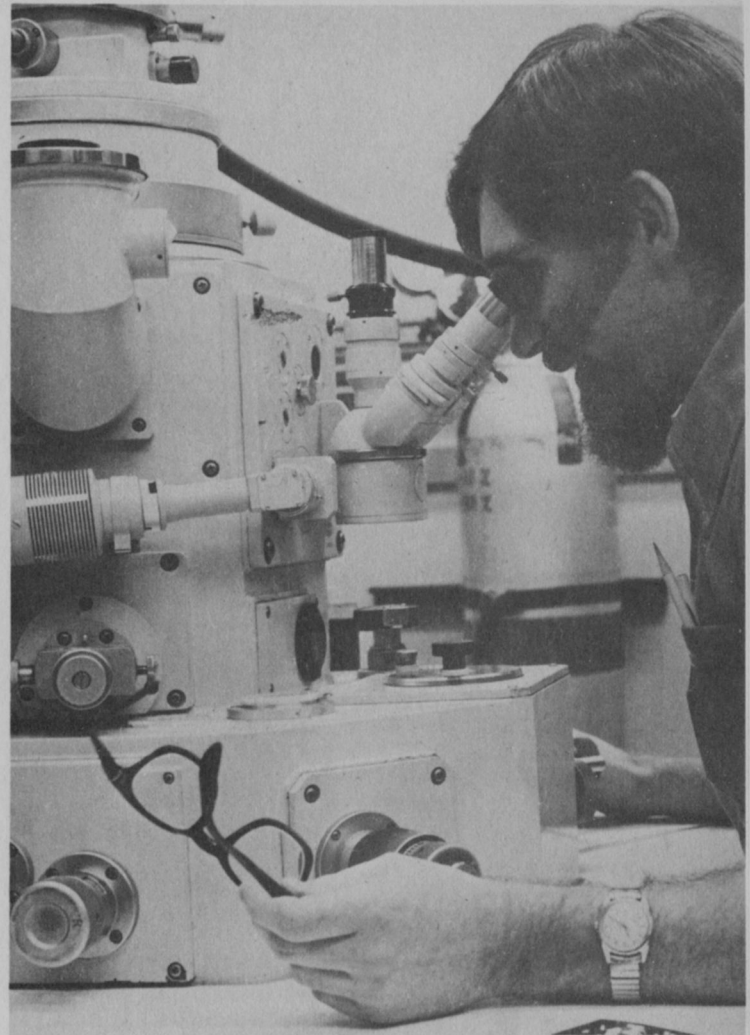
A lecture and lab course that provides advanced training to students generally familiar with the five basic machining arts. Students will review and up-date previously acquired skills. Special attention is devoted to increasing the depth of knowledge on the lathe, mill, and drilling machines. Emphasis 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 precision boring 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 cr. Sm/F/W/Sp

A lecture and lab course that provides advanced training to students generally familiar with the five basic machining arts. Students will receive and up-date 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, and jig bores 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 cr. Sp

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 1973-74 year, only the freshman year will be offered. Some second year metallurgical courses will be offered in the evening program.

FRESHMAN YEAR

Course No.	Course Title	Sm	F	W	Sp
3.444	Welding Metallurgy				4
9.634	Drafting & Blueprint I				2
4.151	Welding I		3		
4.205-6	Basic Chemistry I, II		4	4	

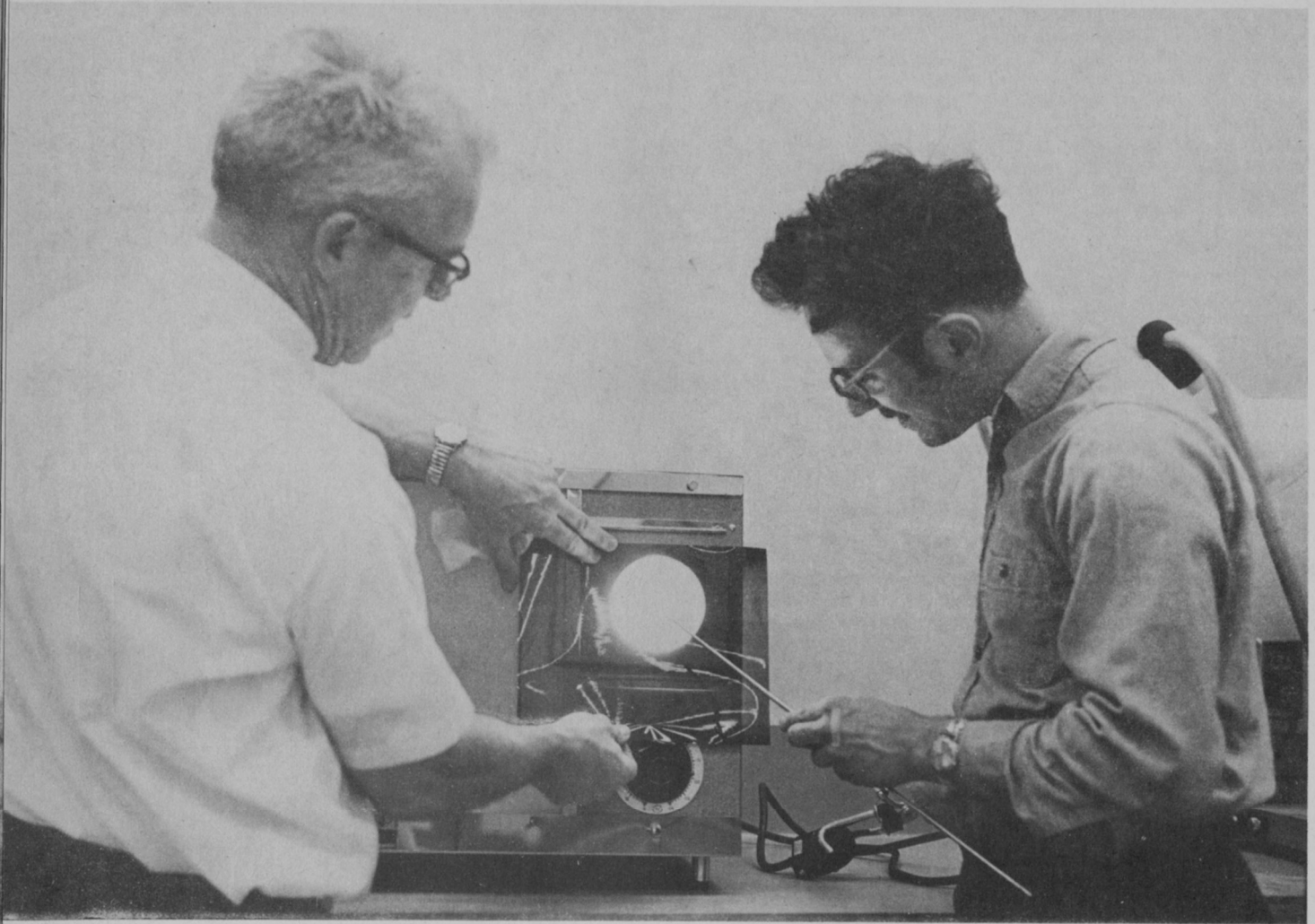
4.300, 302	Practical Physics				4	4
6.551-2	Technical Math I, II	4	4			
6.276	Physical Metallurgy				4	
6.293	Introduction to Metallurgy	4				
6.294	Process Metallurgy					4
PE 190	Physical Education	1	1	1		
		16	17	15		

SOPHOMORE YEAR

Course No.	Course Title	Sm	F	W	Sp	
1.101, 102	Communication Skills I, II	3	3		3	
3.425	Employment Search Technique				1	
3.462	Industrial Electricity	3				
4.108	Industrial Safety				2	
4.120	Fundamentals of Specifications				3	
4.130	Machine Processes				3	
4.161-3	Materials Testing I, II, III	2	2	2		
6.281	Non-Destructive Testing I			3		
6.282	Non-Destructive Testing II				3	
6.298-9	Metallography I, II	2	2			
1.124	American Institutions				3	
HE 250	Personal Health				2	
	Technical Electives				3	3
		15	16	17		

SUGGESTED ELECTIVES

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



4.161, 162, 163 Materials Testing I, II, III
4 class hrs/wk 2 cr. F/W/Sp

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 cr. W

Study of the concepts, structures, properties, heat treatment, methods of forming, and evaluation of metals and alloys. Prerequisite: Introduction to Metallurgy.

6.281 Non-destructive Testing I
5 class hrs/wk 3 cr. W

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 cr. Sp

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 cr. F

Introduction to crystalline and atomic structure of metals, 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 cr. Sp

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 cr. F/W

The understanding and use of metallurgical equipment including technical concepts of specimen procurement, mounting, polishing, etching, visual examination, sketching of structural characteristics, photomicrography and photomicrography of ferrous and non-ferrous materials.

4.122 Strength of Materials
3 class hrs/wk 3 cr. F

An introduction to the mechanics dealing with forces as they relate to tension, compression, torsion, and shear. Three major factors will be involved including metals, time and force. Mechanical properties of metal will be examined as these properties relate to service performance.

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. Time is provided to prepare for and undergo certain welder 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

Course No.	Course Title	Sm	F	W	Sp
3.444	Welding Metallurgy				4
4.100	Blueprint Reading and Sketching	2			
4.108	Industrial Safety			2	
6.551-2	Mathematics I, II	4	4		
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
		16	17	16	

SUGGESTED ELECTIVE

- 4.153 Welding Seminar 3
- 4.151-2 Welding I, II**
 5 class hrs/wk 3 cr. F/W/Sp
 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 and composition of metal and application is included. (For non-majors)
- 4.153 Welding Seminar**
 3 class hrs/wk 3 cr. Sp
 Lecture and discussion sessions covering the field of welding, selection of equipment, and welder certification, etc.
- 4.240 Basic Arc Welding**
 14 class hrs/wk 6 cr. F
 An introduction to arc welding practices on mild steel of various thicknesses and joint configurations in all positions.
- 4.241 Intermediate Arc Welding**
 14 class hrs/wk 6 cr. W
 This course is a continuation of Basic Arc Welding 4.240. Areas of consideration will be arc welding, mild steel, and special ferrous and non-ferrous alloys employing the manual arc, TIG and MIG processes.
- 4.242 Basic Oxyacetylene Welding**
 8 class hrs/wk 4 cr. F
 An introduction to oxyacetylene welding practices on mild steel of various thicknesses and joint configurations in all positions.
- 4.243 Intermediate Oxyacetylene Welding**
 8 class hrs/wk 4 cr. W
 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 dis-similar metals.

4.245 Layout Procedures for Welding
 5 class hrs/wk 3 cr. W

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 cr. Sp

This course is a continuation of Intermediate Arc Welding 4.241. The area of consideration will be preparation for weld certification in all positions with the manual arc process.

4.250 Advanced Oxyacetylene Welding
 8 class hrs/wk 4 cr. Sp

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 4 cr. Sm/F/W/Sp

A course designed to provide the necessary information and skill development to successfully undergo certain welder 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 Occupational Extension
 4 class hrs/wk 2 cr. Sm/F/W/Sp

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 are included.



Occupational Services Division

The objectives of the Occupational Services Division are: 1) to provide curricula designed to meet the individual needs of students and prepare them for employment; 2) to serve the community by providing government, agriculture, service businesses and health agencies with competent workers who have learned basic skills and knowledge in service, health and agriculture fields; 3) to assist in providing training in new and different fields or areas of service, agriculture, and health occupations as needed by the community; 4) to provide updating and upgrading of skills and knowledge of people already employed in the areas covered by this division; and 5) to provide students with vocational counseling that will help them find an occupation that will lead to worthwhile employment.



CHAIRMAN:

Wilfred Jordan

FACULTY:

- William J. Burns, Jr., Coordinator-Food Services
- Vera Collins, Coordinator-Dental Assistant Program
- Gayle Greene, Dept. Chairman-Nursing Program
- Richard Hankey, Coordinator-Criminal Justice Program
- Hal Johnson, Coordinator-Agriculture Program
- Virginia McCraw, Nursing Program
- Anne Mills, Coordinator-Nursing Assistant Program
- Gerald Morgan, Dental Assistant Program
- Jacqueline Paulson, Nursing Program
- Peggy Preston, Nursing Program
- Jean Schreiber, Coordinator-Child Care Program
- Adella Wood, Nursing Program

TWO YEAR ASSOCIATE IN ARTS DEGREE

PROGRAM

Criminal Justice

TWO YEAR ASSOCIATE IN SCIENCE DEGREE

PROGRAMS

- Associate Degree Nursing
- Agriculture
- Criminal Justice
- Fire Science
- Cosmetology
- Food Service

ONE YEAR PROGRAMS

- Agriculture
- Dental Assistant
- Food Service
- Parent-Child Education

SPECIAL PROGRAMS

- Nursing Refresher
- Operating Room Nursing Technician
- Nursing Assistants
- Operating Room Technicians
- Coronary Care Unit - Intensive Care Unit

Special Courses are offered in Occupational Services designed to meet Community Needs.

AGRICULTURE BUSINESS

The Agricultural Business Program is designed to train students for employment in the off-farm occupations of agriculture.

Individuals interested in the program should enjoy working with living things and the outdoors. The combination of manual and mental work make for satisfying careers.

Specific training in Agriculture courses of the students' choice and related business subjects will enable the student to qualify for positions in the Turf Management Industry, Fertilizer and Chemical Industry, Turf and Forage Seed Industry and other related Agriculture Business occupations.

Some of the positions available in the various options are:

TURF MANAGEMENT: Landscape Maintenance Service; Equipment and Supply Salesman; Golf Course Superintendent; Grounds Foreman; and Landscape Construction.

FERTILIZER AND CHEMICALS: Agriculture Chemical Fieldman; Livestock Supplies Fieldman; Fieldman Food Processor; Custom Applicator and Sales Representative.

TURF AND FORAGE SEED TECHNOLOGY: Seed Fieldman, Seed Inspector; Seed Analyst; Warehouse Manager; and Seed Salesman.

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.

Students interested in working toward a degree at a four-year Agriculture College may complete basic transfer requirements at Linn-Benton Community College. Agriculture courses taken may be used as electives after transfer. The program outline recommended by the college of the students' choice should be consulted.

FERTILIZER AND CHEMICALS PROGRAM

FRESHMAN YEAR

Course No.	Course Title	Sm	F	W	Sp
0.605	Basic Mathematics	3			
1.110	or Elements of Algebra	4			
1.606	Intro. to Psy. & Hum. Relations		3		
4.205-6	Basic Chemistry	4	4		
8.100	Survey of Agriculture	1			
8.125-7	Soils I, II, III	3	3	3	
8.130	Agriculture Chemicals			4	
8.165	or Plant Science	4			
8.144	Animal Science Elective				
8.188	Ag Equipment Maintenance			3	
8.230	or Work Experience (Agriculture)				10
	Electives during Spring Quarter				
PE 190	Physical Education	1	1		
		17 18 13			

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.

Course No.	Course Title	Sm	F	W	Sp
1.101, 102	Communications Skills I, II	3	3		
1.524	Applied Economics			3	
8.138	Irrigation and Drainage	3			
8.131	or Pest Control	3			
8.144	Animal Science Elective				
8.230	Work Experience (Agriculture)	10			
	Agriculture Elective			3	
BA 101	Introduction to Business	4			
	Business Electives		3	6	
HE 250	or Personal Health			2	
HE 252	First Aid			2	
PE 190	Physical Education			1	1
	Electives				
		10 17 18			

TURF AND FORAGE SEED PROGRAM

FRESHMAN YEAR		Sm	F	W	Sp
Course No.	Course Title				
0.605	or Basic Mathematics		3		
1.110	Elements of Algebra		4		
4.205-6	Basic Chemistry I, II		4	4	
8.100	Survey of Agriculture		1		
8.120	Seed Technology			3	
8.121	Seed Cleaning				3
8.125-6	Soils I, II	3	3		
8.130	Agriculture Chemicals		4		
8.165	Plant Science	4			
8.180	Warehouse Management			1	
8.188	Ag Equipment Maintenance		3		
8.230	or Work Experience (Agriculture)				10
	Electives				
PE 190	Physical Education		1	1	
			<u>17</u>	<u>18</u>	<u>14</u>

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.

Course No.	Course Title	Sm	F	W	Sp
1.101, 102	Communication Skills I, II		3	3	
1.524	Applied Economics		3		
1.606	Intro. to Psy. & Hum. Relations		3		
6.138	Irrigation and Drainage		3		
3.230	Work Experience (Agriculture)	10			
	Agriculture Elective			3	
BA 101	Introduction to Business		4		
	Business Electives			6	
HE 250	or Personal Health			2	
HE 252	First Aid			2	
PE 190	Physical Education		1	1	
	Electives				3
		<u>10</u>	<u>17</u>	<u>18</u>	

TURF MANAGEMENT PROGRAM

FRESHMAN YEAR		Sm	F	W	Sp
Course No.	Course Title				
0.605	or Basic Mathematics		3		
1.110	Elements of Algebra		4		
1.606	Intro. to Psy. & Hum. Relations			3	
8.100	Survey of Agriculture		1		
8.125-6	Soils I, II		3	3	
8.130	Agriculture Chemicals			4	
8.135-6	Turf Management I, II		3	3	
8.140	Landscape Maintenance		3		
8.165	Plant Science		4		
8.188	Ag Equipment Maintenance			3	
8.230	Work Experience (Agriculture)				10
PE 185	or Fundamentals of Golf		1	1	
	Elective PE				
			<u>18</u>	<u>17</u>	<u>10</u>

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.

Course No.	Course Title	Sm	F	W	Sp
1.101, 102	Communication Skills I, II		3	3	
4.205-6	Basic Chemistry I, II		4	4	
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	or Personal Health			2	
HE 252	First Aid			2	
		<u>10</u>	<u>18</u>	<u>18</u>	



8.100 Survey of Agriculture
 1 class hr/wk 1 cr. F
 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
 4 class hrs/wk 3 cr. W
 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 cr. Sp
 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 cr. F/W
 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 discussed in relation to plant growth.

8.126 Soils II
 4 class hrs/wk 3 cr. W
 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 emphasized.

8.127 Soils III
 3 class hrs/wk 3 cr. Sp
 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 cr. W
 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 also given to procedures used in keeping current with new product development.

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

8.135 Turf Management I
 4 class hrs/wk 3 cr. F/W
 The course introduces and develops 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
 4 class hrs/wk 3 cr. W
 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 provide these opportunities. Business practices and procedures also emphasized.

8.137 Turf and Plant Establishment
 4 class hrs/wk 3 cr. F
 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 cr. F
 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 also emphasized. Surface and subsurface drainage systems discussed.

8.140 Landscape Maintenance
 5 class hrs/wk 3 cr. F
 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 cr. W
 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.

8.144 Animal Science and Nutrition
 4 class hrs/wk 4 cr. W
 Emphasis on nutritional principles of feeding livestock and understanding of the chemistry of digestion. Nutritional requirements to meet growth, maintenance and reproductive needs. Digestibility of feed-stuffs, storing and releasing of energy and the role of essential elements. Genetics, breeding systems and health requirements.

8.145 Feeds and Feeding
 3 class hrs/wk 3 cr. Sp
 Course is designed to develop the ability to formulate rations for livestock and poultry. Choice of ration ingredients in relation to cost and suitability will be considered. Students will be given a working knowledge of feed medication, including a study of feed additives, their approval for use and the problems of residues.

8.165 Plant Science
 5 class hrs/wk 3 cr. F
 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 included.

8.180 Warehouse Management
 1 class hr/wk 1 cr. Sp
 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
 4 class hrs/wk 3 cr. W
 A course designed to teach the principles, maintenance and repair of small engines used on power equipment.



8.230 Work Experience (Agriculture)
(44 hrs. work experience per cr.) Sm/Sp
Max. 10 cr. per 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 class hrs/wk 3 cr. On Demand

Designed to furnish entry and updated skills for seed cleanermen. Will include equipment operation, safety, maintenance, and repair. Seed laws and regulations, seed and weed identification, and warehouse practices.

9.813 Agriculture Chemicals
3 class hrs/wk 3 cr. On Demand

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 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 also given to procedures used in keeping current with new product development.

9.814 Soils and Fertilizers
3 class hrs/wk 3 cr. On Demand

Presentation and discussion of basic facts of Soil Science as they relate to crop production.

9.817 Introduction to Animal Science
4 class hrs/wk 3 cr. F

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.

9.822 Artificial Insemination
3 class hrs/wk 3 cr. On Demand

Inseminator training program with emphasis on dairy and beef cattle. Exceeds requirements of Minimum Standards National Association Animal Breeders, Herdsman-Inseminator Training Program.

FOOD SERVICE

The objectives of the Professional Cooking course are to give students basic cooking skills that will help secure an entry-level job in a restaurant, hotel, hospital, etc.

The course will offer basic cooking skills in cookery of meats, fish, poultry and vegetables; as well as preparation of sauces, salad dressings, quick bread items, and basic exotic dishes.

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

Course No.	Course Title	On Demand
1.101, 102	Communication Skills I, II	
1.606	Intro. to Psy. & Human Rel.	
4.100	Blueprint Reading & Sketching	
4.145-6	Industrial Math I, II	
5.250	Fire Fighting Skills I	
5.251	Fire Fighting Skills II	
5.253	Fire Apparatus & Equipment	
5.254	Introduction to Fire Protection	
5.255	Rescue & Emergency Care for Fire Science	
5.264	Building Const. for Fire Prevention	
HE 250	Personal Health	
PE 190	Physical Education*	
	*Not required for In Service Program	

SOPHOMORE YEAR

Course No.	Course Title	On Demand
1.124	American Institutions	
5.240	Technical Report Writing	
5.260-1	Hazardous Materials I, II	
5.262	Fund. of Fire Prevention	
5.263	Hydraulics & Pump Operation	
5.265	Fire Dept. Organ. & Management	
5.272	Fire Protection Systems	
5.273	Fire Investigation	
9.500	Elements of Supervision	
	Electives	

5.250 Fire Fighting Skills I
9 lab hrs/wk 3 cr.

Individual skills using small tools and minor equipment, practice in forcible entry, use of masks, and other activities generally performed by the individual. A course in practical chemistry I and physics II covering the chemistry of fire, hydraulics, matter, measurements, machines, and energy. Laboratory time

is provided for demonstrations and experiments to help clarify the principles and procedures covered in class.

5.251 Fire Fighting Skills II
1 class - 6 hrs/wk 3 cr.

Practice in team skills used in fire ground operation including hose and ladder evolutions, salvage, overhaul, rescue, fire attack and other activities requiring a team effort.

5.253 Fire Apparatus & Equipment
2 class - 3 lab hrs/wk 3 cr.

Familiarization with different types of fire apparatus; principles of application, care, and preventive maintenance; safe operating procedures, emergency and non-emergency; National Board standards.

5.254 Intro. to Fire Protection
3 class hrs/wk 3 cr.

Philosophy and history of fire protection, history of loss of life and property by fire; role and responsibility of the fire department in the community; organization and function of local, county, state, federal and private fire protection agencies and allied organizations; sources of professional literature; survey of professional career opportunities.

5.255 Rescue & Emergency Care for Fire Science
3 class hrs/wk 3 cr.

A combination of First Aid and rescue practices, standard procedures in the aid and care of victims of the most common emergencies. First Aid emphasis will be on the handling of respiratory, burn, cardiac, fracture and shock victims. Practical methods of carrying out rescues in a number of types of emergencies will be covered.

5.264 Building Construction for Fire Prevention
2 class - 3 lab hrs/wk 3 cr.

Classification of buildings; structural features affecting fire spread, effect of fire on structural strength; fire stops and ratings of materials, fire retardants; Sanborne maps.

5.260 Hazardous Materials I
5 class hrs/wk 3 cr.

Review of basic chemistry; identification of hazardous materials by color, symbol, and marking; recommended safe practices for storage and handling of solids, liquids and gases; methods of fire control of these materials.

5.261 Hazardous Materials II
5 class hrs/wk 3 cr.

Methods for combating fires involving hazardous chemicals and other materials; radiation hazards of the fire service; space age fuel; highway transportation of explosives and other hazardous materials.

5.262 Fundamentals of Fire Prevention
3 class hrs/wk 3 cr.

Organization and function of a fire prevention bureau; fire prevention codes; state and local laws and ordinances; familiarization with principles of fire prevention; the inspector's job; public relations.

5.263 Pump Operation and Practical Hydraulics
2 class-3 lab hrs/wk 3 cr.

Principles of fire apparatus pumping operations, fire ground water supply; construction and operation of fire service pumps and accessories; pump operation under emergency conditions; rule-of-thumb hydraulics.

5.265 Fire Dept. Organization & Management
3 class hrs/wk 3 cr.

This course covers the duties and responsibilities of a department officer and the methods of organizing, maintaining and operating a fire department. Discussed are department communication, fire equipment, training, fire prevention and fire fighting, records and reports.

5.272 Fire Protection Systems
5 class hrs/wk 3 cr.

Portable extinguisher equipment; sprinkler systems; protection systems for special hazards; fire alarm and detection systems; ventilating systems.

5.723 Fire Investigation
3 class-lab hrs/wk 3 cr.

Effect on fire prevention by isolating cause of fire; interpreting clues and burn patterns leading to point of origin; identifying sources of ignition and materials ignited; preservation of the fire scene.

COSMETOLOGY

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

Course No.	Course Title	Sm	F	W	Sp
Art 195	Basic Design				3
1.101	Communication Skills I				3
2.530	Practical Accounting I				3
HE 250	Personal Health				2
9.502	Psychology for Supervisors				3
PE 180/190	Physical Education				1
					<u>15</u>

SECOND QUARTER

Course No.	Course Title	Sm	F	W	Sp
1.102	Communication Skills II				
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	Applied Design				3
	Electives				<u>15</u>

THIRD QUARTER

Course No.	Course Title	Sm	F	W	Sp
2.110	Principles of Salesmanship				3
4.205	Basic Chemistry I				4
Art 293	Elementary Sculpture				3
Eng 104	Intro. to Literature				3
	Electives				<u>13</u>

ELECTIVES: OPTIONAL

Course No.	Course Title	Sm	F	W	Sp
1.505	Employer-Employee Relations	On Demand			
2.131	Elements of Marketing		3		
2.134	Retail Merchandising				3
1.610	Public Speaking				
2.119	Business Management		3	3	3
4.207	Microbiology		3	3	3
Art 290	Painting	3			
Art 291	Drawing		3	3	3

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

3.101 Basic Hairstyling

A basic course for beginners. Introduces student to techniques and procedures.

3.102 Advanced Hairstyling

An advanced course covering techniques, procedures and design. Practical work on manikins and models. Includes iron curling and hot air waving. Prerequisite Course 3.101.

3.103 Hair Cutting
Procedures and techniques of hair cutting. Practical experience in all phases of hair cutting and style cutting.

3.104 Permanent Waving
Theory, chemistry and practical training in the science of permanent waving. Includes Hair Analysis, and Hair Straightening.

3.105 Hair Coloring
Theory, chemistry and practical application of hair coloring, techniques and procedures. Includes types of colors, lightening, permanent and temporary coloring. Practical experience and class room demonstration.

3.106 Wiggery
Course dealing with all phases of hairpieces: Styling, Cutting, Alterations, Cleaning, Conditioning, and Fitting.

3.107 Manicuring
A course in procedures and techniques of manicuring, includes massage, trimming, coloring, polishing, cleansing and beautifying the nails and hands.

3.108 Cosmetology
Theory and chemistry of all cosmetics, lotions, ointments, electricity, light therapy and massage. Course includes Make-up Design and Corrective Make-up.

3.109 Anatomy & Physiology
Study of head, face, neck, shoulders, arms, hands, and feet. Chemistry of hair, nails and skin includes Neurology, Angiology, Myology and Osteology plus all the body systems.

3.110 Oregon Law
Course involving Chapter 691, Oregon Revised Statutes (Cosmetic Therapists), General Provisions, Registration and Licensing, Denial - Revocation - Suspension of Certificate of License, Prohibited Practices, Schools of Cosmetic Therapy, Teachers of Cosmetic Therapy, Fees, Penalties and State Board of Cosmetic Therapy. Course also includes Sanitary Rules.

3.111 Personality Development
Personal Hygiene, Visual Poise, Development of good working habits and Human Relations.

3.112 Business Management
Course designed to cover Salesmanship, Records, Advertising, Business Law and Management of Salon and Personnel.

3.113 Sanitation, Hygiene & Bacteriology
Study of Bacteriology in relation to Cosmetic Therapy and the Therapist. Sanitation courses to cover techniques and procedures of sanitation in each cosmetic therapy service and practice.

CRIMINAL JUSTICE STUDIES

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, 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 justice studies majors. (The basic core includes CJS 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.

CJS 111-3 Law Enforcement and Society
3 class hrs/wk 3 cr. F/W/Sp
Historical development of law enforcement; analysis of current crime picture; criminal behavior; professional career orientations; constitutional law enforcement.

CJS 211 Administration of Criminal Justice
3 class hrs/wk 3 cr. W
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: CJS 111 or consent of instructor.

CJS 5.220 Intro. to Arrest, Search & Seizure
3 class hrs/wk 3 cr. W
Developmental history in English common law and U.S. case law, constitutional and statutory provisions. Rights and responsibilities of citizens and criminal justice personnel and agencies. Prerequisites: CJS 213 Law of Evidence and CJS 212 Criminal Law or consent of instructor.

CJS 214 Intro. to Criminal Investigation
3 class hrs/wk 3 cr. Sp
Fundamentals of criminal investigation, theory and history; crime scene to courtroom with emphasis on techniques appropriate to specific crimes. Prerequisite: CJS 213 Law of Evidence and CJS 212 Criminal Law or consent of instructor.

CJS 213 Legal Aspects of Evidence
3 class hrs/wk 3 cr. W
Origin, development, philosophy and constitutional basis of evidence; constitutional and procedural considerations affecting arrest, search and seizure; kinds and degrees of evidence and rules governing admissibility; judicial decisions interpreting individual rights and case studies. Prerequisite: CJS 2123 Criminal Law or consent of instructor.

CJS 212 Concepts of Criminal Law
3 class hrs/wk 3 cr. F
Historical development, philosophy of law and constitutional provisions; definitions, classification of crimes, and their application to the system of administration of justice; legal research, study of case law, methodology, and concepts of law as a social force. Prerequisite: CJS 111 or consent of instructor.

CJS 5.224 Patrol Management and Operations
3 class hrs/wk 3 cr. F
General objectives and functions of patrol; types of patrol; allocation of resources for patrol; analysis of patrol methods and techniques. Prerequisite: CJS 111-3 or consent of instructor.

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

CJS 5.229 Counseling and Interviewing
3 class hrs/wk 3 cr. W
Fundamentals of counseling and interviewing in correction and rehabilitation work; development of case histories and reports. Prerequisites: CJS 111-3 or consent of instructor.

CJS 5.230 Fundamentals of Crime & Delinquency
3 class hrs/wk 3 cr. F
Causes of crime and methods of dealing with criminality. Prerequisite: CJS 111-3 or consent of instructor.

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

CJS 5.232 Intro. to Juvenile Delinquency
 3 class hrs/wk 3 cr. Sp

Definition, development and patterns of delinquent behavior; institutional controls and treatment; legal methods of dealing with delinquency. Prerequisite: CJS111-3 or consent of instructor.

CJS 5.233 Institutions and Agencies
 3 class hrs/wk 3 cr. TBA

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

NURSING ASSISTANT

The Nursing Assistants program is a 12 week course which prepares men and women, ages 17-62, for 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 career such as physical therapy and licensed practical nurse.

Course No.	Course Title	
5.406	Nursing Assistant Lecture	12 credits
5.407	Nursing Assistant Lab	

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

ASSOCIATE DEGREE NURSING

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. Clinical facilities utilized are: Linn Care Center; 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 fully accredited 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). Courses must be taken in sequence. 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 re-admitted 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

Course No.	Course Title	F	W	Sp
5.711	Nursing I*	5		
5.712	Nursing II*		5	
5.713	Nursing III*			8
5.726-8	Nursing in Cont. Soc.*	1	1	1
4.201-3	Integrated Basic Science*	4	4	4
4.211-2	Nutrition I, II*	3	3	
Psy 201-2	Psychology*	3	3	
Soc 204	General Sociology*			3
		16	16	16

SOPHOMORE YEAR

Course No.	Course Title	F	W	Sp
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	3	3	
PE 180/190	Physical Education**	1	1	1
Hst 101	History of West. Civilization*	3		
	Humanities			3
	Elective			3
		16	16	16

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



ASSOCIATE DEGREE NURSING (cont.)

5.711	Nursing I			
	9 class hrs/wk	5 cr.		F
5.712	Nursing II			
	9 class hrs/wk	5 cr.		W
5.713	Nursing III			
	14 class hrs/wk	8 cr.		Sp

ADMISSION TO NURSING PROGRAM IS REQUIRED.

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.

5.726-9 Nursing in Contemporary Society
1 class hr/wk 1 cr./term F/Sp

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 setting. Must be taken in sequence. Prerequisite: Permission of the instructor.

5.721	Nursing IV			
	17 class hrs/wk	9 cr.		F
5.722	Nursing V			
	24 class hrs/wk	12 cr.		W
5.723	Nursing VI			
	14 class hrs/wk	8 cr.		Sp
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. Prerequisite: Full sophomore standing in Nursing. Must be taken in sequence.

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 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, particularly 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

Course No.	Course Title	Sm	F	W	Sp
1.101	Communication Skills I	3			
SS 122	Typing	2			
4.201	Integrated Basic Science I	3			
2.748	Personal Dev. for Car. Women	3			
5.445	Intro. to Dental Assisting	3			
		<u>14</u>			

FALL

Course No.	Course Title	Sm	F	W	Sp
4.202	Integrated Basic Science II	3			
5.484	Dental Materials - Lab I	2			
1.606	Intro. to Psychology	3			
5.461	Dental Radiology I	2			
5.494	Clinical Practice I	4			
		<u>14</u>			

WINTER

Course No.	Course Title	Sm	F	W	Sp
5.453	Dental Pathology		1		
5.505	Dental Specialities		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		
			<u>12</u>		

SPRING

Course No.	Course Title	Sm	F	W	Sp
5.510	Office Practicum				8
5.510	Office Practicum Seminar				3
5.463	Dental Radiology III				1
					<u>12</u>

5.445 Intro. to Dental Assisting
3 class hrs/wk 3 cr. Sm

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 cr. W

A study of common pathological diseases, injured and normal tissue developmental anomalies. Prerequisite: Integrated Basic Science I, II.

5.461 Dental Radiology I
2 class hrs/wk 2 cr. F

An introduction to the history and principles of x-ray terminology and the hazards of radiation and safety factors. An introduction to the techniques for intra-oral periapical and bitewing film.

5.462 Dental Radiology II
3 class hrs/wk 1 cr. W

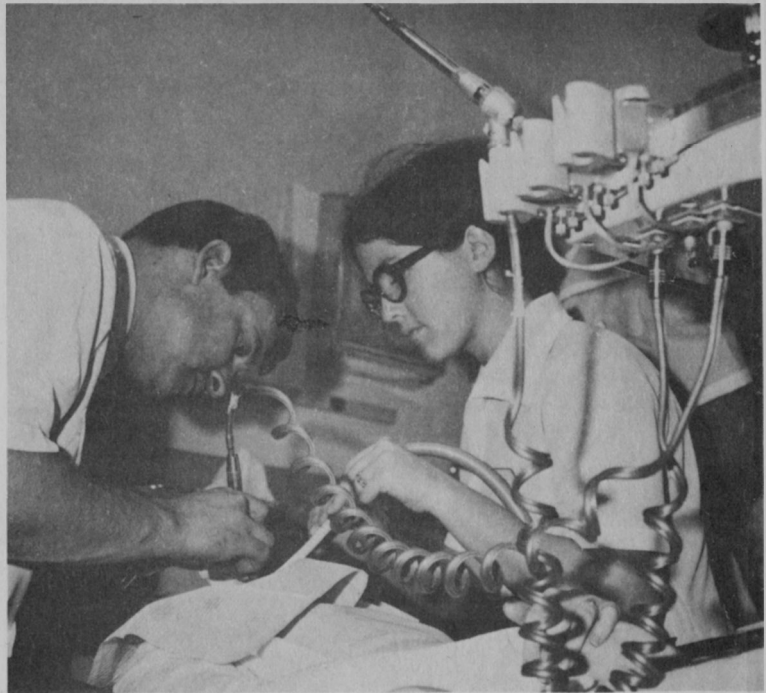
Techniques of Radiology, positioning the patient and angulation. X-ray film, chemistry of development and fixation and complete darkroom procedures. Actual working procedures introduced. Prerequisite: Dental Radiology I.

5.463 Dental Radiology III
3 class hrs/wk 1 cr. Sp

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 cr. F

An introduction to dental materials, their composites, and properties. Practical experience in handling and manipulating operator and laboratory equipment. Prerequisite: Admittance to Dental Assistant Program.



5.485 Dental Materials/Lab II
4 class hrs/wk 2 cr. W

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 cr. W

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 cr. F

An introduction to practical office procedures including instrumentation, tray set-ups, rubber dam and restorative procedures. Equipment and its care, patient seating, dismissal, and dental office emergencies. Prerequisite: Introduction to Dental Assisting 5.445.

5.495 Clinical Practice II
8 class hrs/wk 4 cr. W

A continuation of Clinical Practice I in general chair-side assisting. Practical applications of dental procedures. Patient Education in preventive dentistry. Prerequisite: Clinical Practice I.

5.505 Dental Specialities
1 class hr/wk 1 cr. W

Specialists in the dental profession will 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. Sp

Students are assigned to ethical clinical practices for practical application of dental assistant procedures. The student will be trained under proper supervision. Prerequisite: *Fourth term status.

5.515 Office Practicum Seminar
3 class hrs/wk 3 cr. Sp

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: Fourth Term Status is successful completion of every course during the first three terms.

NURSE REFRESHER COURSE

This course is designed for registered nurses who have not been active in the practice of nursing for the past five years and must meet the Oregon State Board of Nursing requirements of a refresher training program; in order, to receive registered nurse license for the State of Oregon or those registered nurses who would like to take the course to meet their own needs for increased knowledge.

The course will consist of the State requirements of 240 hours or equivalent in classroom and clinical settings under the direct supervision of a LBCC Nursing Instructor. The course is one quarter in length and open to male and female students of all ages. Students who successfully complete the course receive a certificate. The program is approved by the Oregon Board of Education and the Oregon State Board of Nursing.

PARENT-CHILD EDUCATION

PROGRAM CERTIFICATES

Child Care - Four Term Curriculum planned to prepare child care personnel for employment within public and private child caring agencies, preschools, day care centers, residential treatment facilities and certain positions within the public school system such as teaching assistant and classroom aide.

FOUR TERM CERTIFICATE PROGRAM

ENTRANCE TERM - FALL OR SPRING

Course No.	Course Title	Sm	F	W	Sp
7.150	Child Care Practices I		3		3
1.101	Communications Skills I		3		3
7.190	Field Project I		2		2
7.140	Observing and Recording Child Behavior		3		3
	Related Electives		5		5
			16		16

2ND TERM - WINTER OR SUMMER

Course No.	Course Title	Sm	F	W	Sp
7.151	Child Care Practices II	3		3	
1.102	Communications Skills II	3		3	
7.180	Supervised Placement	14		14	
	Related Electives	6		6	
		26		26	

3RD TERM - SPRING OR FALL

Course No.	Course Title	Sm	F	W	Sp
7.181	Supervised Placement		14		14
7.125	Home-School-Community		3		3
			17		17

COMPLETION TERM - SUMMER OR WINTER

Course No.	Course Title	Sm	F	W	Sp
7.110	Family Management and Decision Making	3		3	
7.191	Field Project II	8		8	
	Related Electives	5		5	
		16		16	

7.110 Family Management & Decision Making
3 class hrs/wk 3 cr. Sm/W
Development of systems for family decision making that reflect life style and family philosophy for prescribed stereotypic family sets. The student will practice implementing systems appropriate for use, preferably within his own family.



7.125 Home-School-Community
2 class-2 lab hrs/wk 3 cr. F/Sp

Students will examine communication methods used to link home, school, and community. Emphasis placed on parent and child relationship to school and community resources. Student will select a parent group of a child care service or elementary school and identify parent participation factors.

7.140 Observing & Recording Child Behavior
3 class-1 lab hrs/wk 3 cr. F/Sp

Introduction to behavioral observation techniques, factual recording, use of terms expressing the quality of interrelatedness with people and materials. Observations made over time periods in child care settings.

7.150 Child Care Practices I
3 class hr/wk 3 cr. F/Sp

Analysis of alternatives to parental care. Examination of standards, methods, and programs related to the formation and maintenance of child care services, such as day care centers, family day care, foster care and institutions. Emphasis on family need and feasibility of maintaining specific programs.

7.151 Child Care Practices II
3 class hrs/wk 3 cr. Sm/W

Methods of establishing environment for learning, physical development and emotional growth. Guidance techniques appropriate for teaching language, social and manipulative skills within group setting.

7.180 Supervised Placement I
2 class-4 lab hrs/wk 4 cr. Sm/F/W/Sp

Work 1/2 day per week in child care setting under the direction of teaching person. Assignment may include material preparation, skill training, and specific care tasks. Weekly class session will permit students from various placements to share in common learning experience with peers and to tie placement activity to training objectives.

PARENT-CHILD EDUCATION (cont.)

7.181 Supervised Placement II
 2 class-24 lab hrs/wk 14 cr. Sm/F/W/Sp

Work 24 hours per week in child care agency program as an intern with staff status and obligations, probably planning sequence of learning experiences, recording group behaviors, and evaluation of individual children. Weekly class session will encourage awareness of placement learning and observations.

7.190 Field Project I
 1 class-3 lab hrs/wk 2 cr. F/Sp

Individual students will select child care program content area, develop guidance unit materials, apply educational objective criteria and present project to group of children. Opportunity to evaluate content, methodology, presentation and assess reactions will be included during class seminar schedule.

7.191 Field Project II
 3 class-10 lab hrs/wk 8 cr. Sm/W

Individual students will select child care service category, identify service objectives, develop plan of implementation and conduct phase I of plan during term. Group of students may work cooperatively to extend the scope of the project. The class hours will provide cohesion and evaluation.

7.260 Health of Young Children
 3 class hrs/wk 3 cr. Sm/W

Components of healthful environment. Child care agency personnel responsibility for developing procedures of screening, prevention, diagnosis and referrals. Teaching techniques of nutrition, self care and general health. "Health is defined as a state of complete physical, mental and social well being, not merely the absence of disease or infirmity". (World Health Organization).

HEATING, AIR CONDITIONING, AND REFRIGERATION (Proposed)

The Heating, Air Conditioning, and Refrigeration curriculum is a two-year program designed to prepare service and repair people for this expanding field. The objective of this two-year Associate Degree program is to train individuals primarily for installing and servicing commercial type heating, air conditioning, and refrigeration equipment. The well-balanced theory, laboratory, and on-the-job training is designed to develop the student's ability to diagnose problems and to equip him with the necessary skills to install and repair various equipment.

FRESHMAN YEAR

Course No.	Course Title	Sm	F	W	Sp
4.300	Basic Physics I		3		
4.200	Math I		4		
3.302	Basic Mechanics		4		
4.151	Welding I		4		
1.101	Communication Skills I		3		
4.301	Basic Physics II			3	
4.202	Math II			4	
3.149	Basic Electricity			4	
1.102	Communication Skills II			3	
4.152	Welding II			4	
4.302	Basic Physics III				3
4.204	Math III				4
4.100	Blueprint Reading & Sketching				3
PE 180/190	Physical Education				1
3.200	Refrigeration Systems I				4
			18	18	15

SOPHOMORE YEAR

Course No.	Course Title	Sm	F	W	Sp
1.606	Psychology of Human Relations		3		
PE 180/190	Physical Education		1		
3.202	Burner Systems		4		
3.203	Controls I		4		
3.205	Air Conditioning Systems I		4		
3.201	Refrigeration Systems II		4		
3.204	Controls II			4	
3.207	Comm. Burners and Control Systems			4	
HE 250	Personal Health			2	
BA 101	Introduction to Business			3	
2.110	Principles of Salesmanship			3	
3.206	Air Conditioning Systems II			4	
BA 211	Principles of Accounting				3
3.208	Systems Design				4
3.209	Piping Design				4
1.200	Cooperative Work Experience				7
			20	20	18

RECREATIONAL VEHICLE REPAIR (Proposed)

The Recreational Vehicle Repair curriculum is designed to prepare the individual with the necessary saleable skills to find employment in such occupational areas as snowmobile mechanics, motorcycle mechanics, outboard engine mechanics, chainsaw mechanics, and lawn and garden equipment mechanics. Course content will consist of the appropriate classes, laboratories, and on-the-job experience designed to give the learner minimum occupational qualifications.

Course No.	Course Title	Sm	F	W	Sp
3.125	Two/Four Cycle Engine*		8		
3.149	Basic Electronics*		4		
3.126	Recreational Vehicles (overview)*		3		
0.605	Basic Mathematics		4		
4.151	Welding		2		
3.127	Two/Four Cycle Carburetion/ Ignition*			5	
3.128	Two/Four Cycle Diagnostic/ Troubleshooting*			4	
3.129	Outboard Engine Applications*			4	
3.130	Chain Saw Applications*			4	
2.120	Small Business Management			3	
3.131	Lawn/Garden Equipment Applications*				4
3.132	Snowmobile Applications*				4
3.133	Motorcycle Applications*				4
1.200	Cooperative Work Experience*				7
			21	20	19

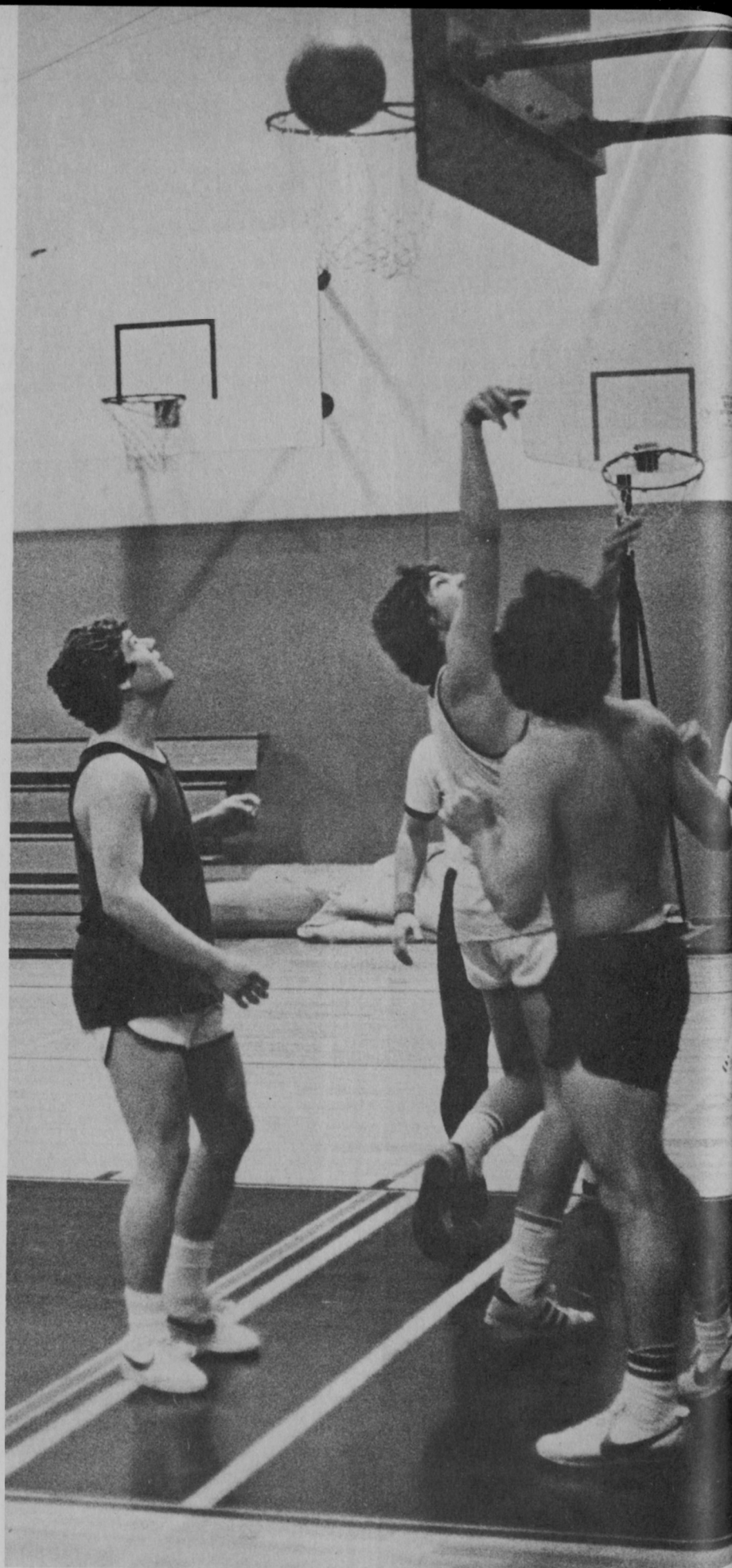


Physical Education and Health Division

The Physical Education and Health Division provides a comprehensive program for students who want to gain knowledge about the value and need for preventive and corrective health practices, and who want to participate in physical activities to gain and maintain physical fitness while learning skills.

Health related instruction includes the theory and application of facts and attitudes for maintaining optimum health for the individual and society.

Physical activity is provided through three distinct learning and participation opportunities. Students can learn lifetime recreational skills. There are developmental courses which stress conditioning of the body and maintenance of a specific level of physical condition. There are team sport courses which provide a high level of conditioning and activity.



CHAIRMAN:

Richard McClain

FACULTY:

David Bakley, Health, Physical Education

Arlene Crosman, Physical Education

Verlund "Butch" Kimpton, Physical Education

PE 180 Creative Movement
3 class hrs/wk 1 cr. W

Dance as a creative art actively representing total personality growth. The course includes training and practice in movement as expression.

PE 180 Beginning Ballet
3 class hrs/wk 1 cr. F/W/Sp

Beginning ballet introduces the student to classical ballet techniques. Study is made of the positions of the feet, the plié, various body positions, poses, and directions. Every class begins with work at the barre, where proper warm up methods are taught and emphasized. Simple series of ballet steps are also taught.

PE 180 Intermediate Ballet
3 class hrs/wk 1 cr. F/W/Sp

Intermediate ballet, the logical extension of the beginning course, introduces the student to more sophisticated and difficult movements. Beginning steps are practiced and perfected at each class, new steps being added as the students progress. Attention is given to music for ballet and to elementary choreography.

PE 180 Women's Gymnastics
3 class hrs/wk 1 cr. W

Gymnastics: Instruction and practice in tumbling, trampoline, unevens, balance beam, floor exercise, vaulting.

9.601 Women's Gymnastics Judging
3 class hrs/wk 1 cr. F/Sp

This course is designed for individuals interested in women's gymnastics judging. The course will include both optional and compulsory FIG rules for women's gymnastics.

PE 180 Women's Body Conditioning
3 class hrs/wk 1 cr. F/W/Sp

Instruction and practice in exercises that will condition the body to develop a level of strength, flexibility and endurance which enables one to maintain an erect alignment, complete ones work, participate in active recreation and to possess a reserve supply of energy.

PE 180 Women's Tennis
3 class hrs/wk 1 cr. F/W/Sp

Instruction and practice in rules, etiquette, grips, stances, forehand and backhand drive, service, receiving, playing position and class play.

PE 180 Women's Volleyball
3 class hrs/wk 1 cr. Sm/F/W/Sp

This course is designed to teach basic volleyball skills to the beginner. A major emphasis will be to increase player abilities within a team situation.

PE 185 Beginning Bowling
3 class hrs/wk 1 cr. Sm/F/W/Sp

A co-educational bowling class which stresses fundamentals. The course is intended to provide a basic foundation from which students may progress to advanced bowling skills.

PE 185 Intermediate Bowling
3 class hrs/wk 1 cr. Sm/F/W/Sp

A co-educational class which provides opportunity to increase skills and techniques of bowling. Rules and courtesies of the game as well as social recreational value to the student will be stressed.

PE 185 Advanced Bowling
3 class hrs/wk 1 cr. Sm/F/W/Sp

An advanced co-educational class which provides opportunity to further increase skills and techniques of bowling. Rules and courtesies of the game as well as social recreational value to the student will also be stressed.

PE 185 Beginning Badminton
3 class hrs/wk 1 cr. Sm/F/W/Sp

Instruction and practice in stances, grips, service, strokes, scoring, rules and strategy. Demonstration of singles and doubles play, plus teamwork involved.

PE 185 Intermediate Badminton
3 class hrs/wk 1 cr. Sm/F/W/Sp

A more advanced class of instruction and practice in stances, grips, service, strokes, scoring, rules and strategy. Demonstration of singles and doubles play, plus teamwork involved.

PE 185 Beginning Golf
3 class hrs/wk 1 cr. Sm/F/Sp

An introduction to the mental and physical needs involved in golf participation. This includes grip, stance, swing techniques, rules, strategy, and etiquette.

PE 185 Intermediate Golf
3 class hrs/wk 1 cr. Sm/F/Sp

Designed to improve and correct basic swing errors. A more detailed presentation of golf techniques and strategy will aid the intermediate golfer toward becoming a more successful golfer.

PE 185 Advanced Golf
3 class hrs/wk 1 cr. Sm/F/Sp

Intercollegiate as well as recreational golf with the emphasis on development of skills during competitive play.

PE 185 Jogging
3 class hrs/wk 1 cr. Sm/F/Sp

Instruction and practice in jogging to increase the maximum amount of oxygen that the body can process in a given time.

PE 185 **Beginning Swimming**
 3 class hrs/wk 1 cr. F/W/Sp

Instruction and practice in individual basic water skills and knowledge to make one reasonably safe while in, on or about the water.

PE 185 **Intermediate Swimming**
 3 class hrs/wk 1 cr. F/W/Sp

Instruction and practice in individual water skills and knowledge to make one safe while in, on or about the water; an opportunity to learn elements of good swimming.

PE 185 **Advanced Swimming**
 3 class hrs/wk 1 cr. F/W/Sp

Instruction and practice in water skills and knowledge to increase one's endurance and versatility in the water by providing opportunity to coordinate the parts of strokes into the whole stroke.

PE 185 **Life Saving**
 3 class hrs/wk 1 cr. W

Instruction and practice in lifesaving skills that will enable one to take care of himself and be able to aid or rescue anyone in danger of drowning when rescue is humanly possible.

PE 185 **Water Safety Instruction (WSI)**
 3 class hrs/wk 1 cr. Sp

The training course for WSI instructors is divided into two parts. Part one trains, conditions and prepares one to enter part two, which trains an individual as a teacher of Red Cross Water Safety.

PE 185 **Tennis**
 3 class hrs/wk 1 cr. Sm

Instruction and practice in rules, etiquette, grip, stance, forehand, and backhand drives, service, volley, lob, overhead smash, receiving, playing position and class play, game strategy (singles and doubles).

PE 190 **Beginning Baseball**
 3 class hrs/wk 1 cr. F

A course which allows a student to learn or improve basic baseball skills and knowledge.

PE 190 **Advanced Baseball**
 3 class hrs/wk 1 cr. Sp

A course designed to prepare students for intercollegiate competition in baseball.

PE 190 **Baseball Conditioning**
 3 class hrs/wk 1 cr. W

A physical conditioning course with emphasis on developing strength and agility for better efficiency in baseball skills.

PE 190 **Baseball Skills**
 3 class hrs/wk 1 cr. W

A course which offers students the opportunity to learn and improve individual baseball skills.

PE 190 **Softball**
 3 class hrs/wk 1 cr. Sm/Sp

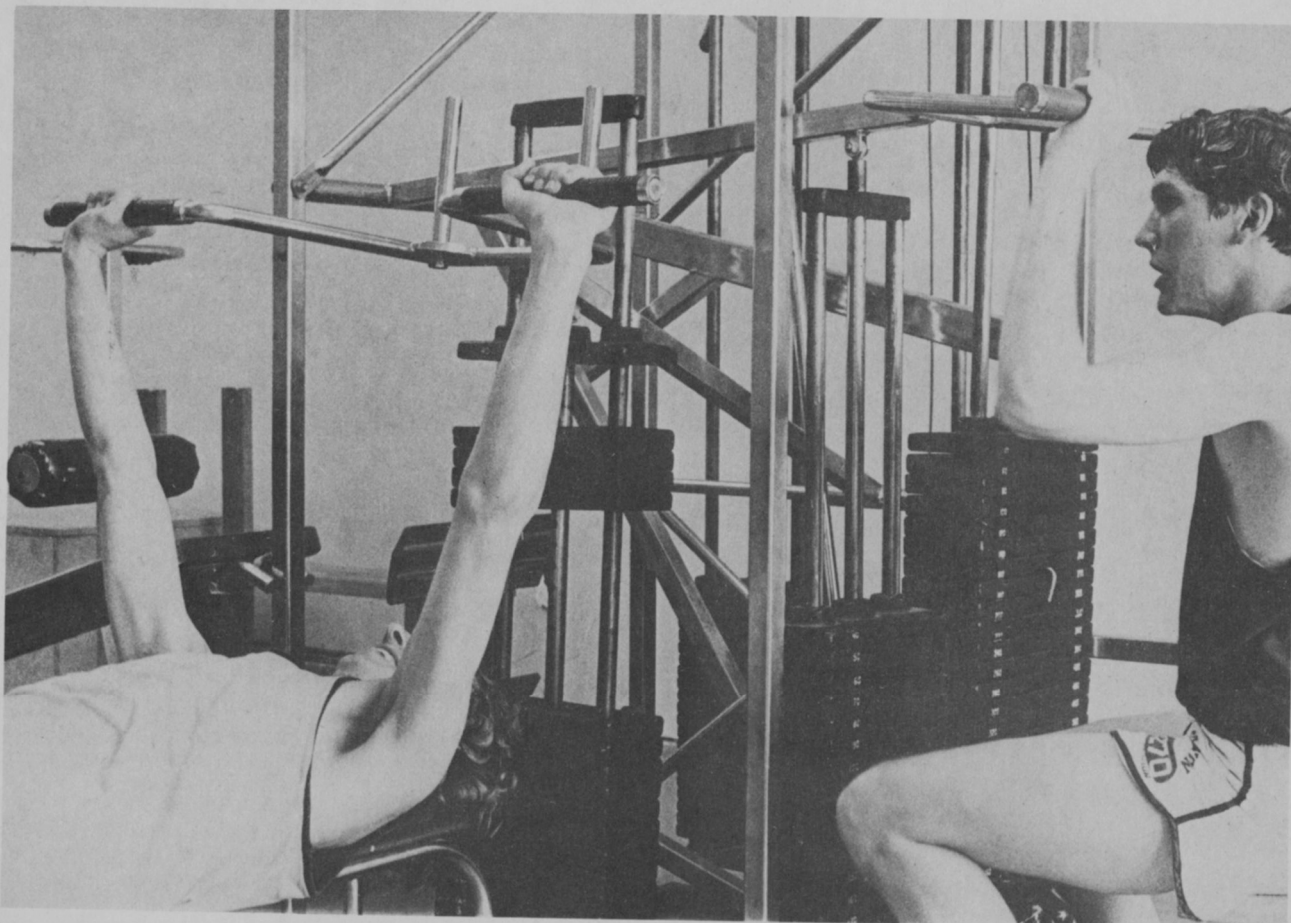
A course which provides experience and learning in fundamental skills of softball as well as providing game experience. It is basically designed with an emphasis on slow pitch rather than a fast pitch style of play.

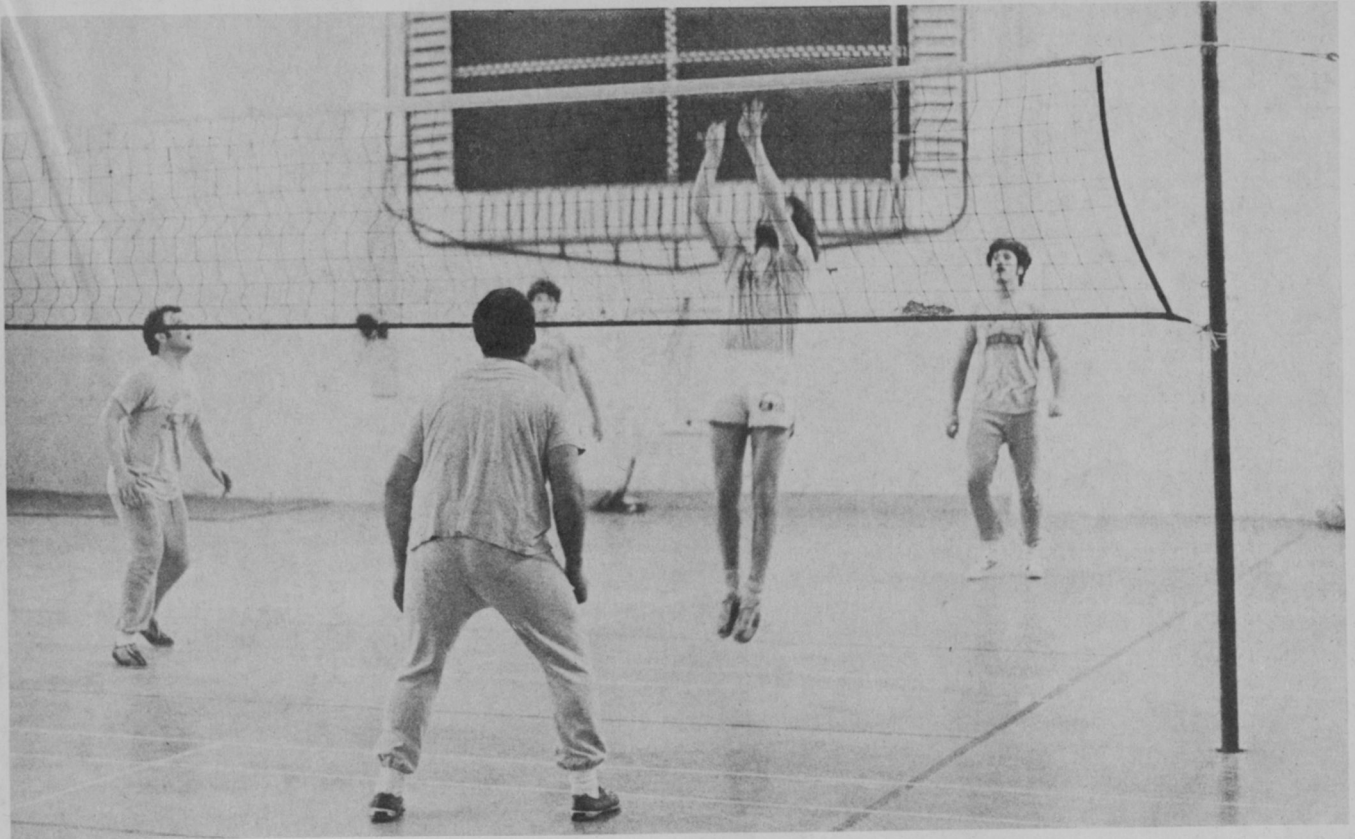
PE 190 **Beginning Basketball**
 3 class hrs/wk 1 cr. F/W

This course is designed to teach the beginning basketball player basic skills and concepts in basketball. We will begin with fundamentals and work toward a full court situation.

PE 190 **Intermediate Basketball**
 3 class hrs/wk 1 cr. Sm/F/W/Sp

This course is designed to advance the beginning basketball player's skills toward better success in a game situation.





PE 190 Advanced Basketball
3 class hrs/wk 1 cr. W

This is intercollegiate basketball level. Emphasis is on development of skills for competition among the OCCAA conference colleges.

PE 190 Body Conditioning
3 class hrs/wk 1 cr. F/W/Sp

This course is designed to elevate the level of fitness through general exercise and weight lifting.

PE 190 Flag Football
3 class hrs/wk 1 cr. F

This course is designed to provide experience to develop various skills fundamental to flag football. Organization of class depends upon skill level of class.

PE 190 Men's Gymnastics
3 class hrs/wk 1 cr. F

Instruction and practice in tumbling, trampoline, floor exercise, vaulting, parallel bars, side horse, high bar, and rings.

PE 190 Handball
3 class hrs/wk 1 cr. Sm/F/W/Sp

This course is designed to instruct the student in the basic skills of handball.

PE 190 Men's Tennis
3 class hrs/wk 1 cr. F/Sp

Instruction and practice in rules, etiquette, grip, stance, forehand and backhand drives, service, volley, lob, overhead smash, receiving, playing position and class play, game strategy (singles and doubles).

PE 190 Volleyball
3 class hrs/wk 1 cr. Sm/F/W/Sp

This course is designed to teach basic volleyball skills to the beginner. A major emphasis will be to increase player abilities within a team situation.

PE 190 Wrestling
3 class hrs/wk 1 cr. W

Designed to acquaint the student with the fundamentals of collegiate wrestling as set forth by the

NCAA. Included will be instruction, demonstration, and practice in all aspects of wrestling.

HE 131 Intro. to Health and Physical Education
3 class hrs/wk 3 cr. F

Professional orientation; basic philosophy and objectives; professional opportunities and qualifications. Designed for students to learn about the Physical Education and Health profession as a career.

HE 250 Personal Health
2 class hrs/wk 2 cr. Sm/F/W/Sp

Health attitudes, outlooks and feelings as these affect the individual, community, nation and world. Emphasis is on improving the quality of health by providing reliable information in order to achieve a long and productive life.

HE 252 First Aid
3 class hrs/wk 3 cr. F/W/Sp

First Aid instruction and practice in First Aid skills that will enable one to take care of himself and to be able to aid others in the event of an accident or illness.

9.137 First Aid Multi-Media
1 cr. Sm/F/W/Sp

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. Completion of the course earns the student the Standard First Aid Certificate of the American Red Cross.

9.315 Standard First Aid
1 class hr/wk 1 cr. On Demand

Theory and practice in immediate and temporary care given in case of accident or sudden illness. Complies with American Red Cross requirements.



Science-Mathematics Division

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. In addition, 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.

CHAIRMAN:

Peter Scott

FACULTY:

James Baker, Biology
 Michael Morgan, Mathematics
 Galen Nielsen, Mathematics
 Raymond Perkins, Physical Science
 Steve Rasmussen, Physical Science
 Wallace Reed, Mathematics
 Robert Ross, Biology
 Dell Swearingen, Mathematics
 Edward Wright, Mathematics

1.110 Elements of Algebra
 4 class hrs/wk 4 cr. Sm/F/W/Sp

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, graphing, and develops the solution of quadratic equations by factoring. The 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 cr. Sm/F/W/Sp

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 and absolute values. Introduction to the study of real-valued functions; polynomials, 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 cr. Sm/F/W/Sp

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 cr. Sm/F/W/Sp

Introduction to circular functions, trigonometric functions, curve sketching, complex numbers, polar coordinates, and matrices. Prerequisite: Mth 101 and/or consent of instructor.

Mth 103 Probability & Statistics
 4 class hrs/wk 4 cr. Sp

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 cr. Sm/F/Sp

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 cr. F/W/Sp

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 elementary plane geometry i.e. incidence, measurement, congruence, and similarity. The student will be expected to write simple proofs for conjectures and compare mathematical systems. Ed 209 must be taken concurrently with Mth 122, 123. 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 cr. F/W/Sp

This course is designed to provide a mathematical foundation and computation 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 cr. F/W/Sp

Standard sequence for students in mathematics, science, and engineering:

Mth 200: Functions and graphs, limits, continuity, differentiation, applications of differentiation, related rates and extrema, and anti-differentiation. Prerequisite: Mth 110 or consent of the instructor.

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 variables, infinite series, Taylor's theorem, differentiation and integration of power series.

Terms must be taken in sequence.

Mth 233 Introduction to Numerical Computation
 3 class hrs/wk 3 cr. W/Sp

Basic principles of computation; programming a computer in an algebraic language. Prerequisite: Mth 100 or consent of the instructor.

4.200 Math I
 4 class hrs/wk 4 cr. Sm/F/W/Sp

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

4.202, 204 Math II, III
 5 class hrs/wk 4 cr. F/W/Sp

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

4.202: 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. Prerequisite: Math I or equivalent.

4.204: 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, and volume of basic geometrical shapes. The Algebra and Geometry will also be used to solve typical occupation formulas and related applied problems. Prerequisite: Math II.

6.550 Pre-Tech Mathematics
4 class hrs/wk 4 cr. Sm/F

The course will use algebra as a tool to solve basic problems in geometry and will emphasize both the metric and the coordinate approach. In addition, the course will cover only those definitions, postulates, and theorems which are needed in later courses.

6.551-3 Technical Math I, II, III
4 class hrs/wk 4 cr. F/W/Sp

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.

6.551: 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. Prerequisite: Two years of high school algebra, Pre-Tech Math (6.550) or consent of instructor.

6.552: Trigonometric functions and identities with applications, vectors, conditional equations, and complex numbers with applications. Prerequisite: 6.551.

6.553: Analytic Geometry, intuitive introduction to differential and integral calculus. Emphasis placed on functions and applications to technical areas. Prerequisite: 6.552.

6.554 Technical Project
3 class hrs/wk 3 cr. Sp

Activity designed to acquaint the student with course related field problems. The student will undertake a special study of activity in his field of interest. The course is designed to develop skill in gathering, sorting, finding solutions in logical, mathematical and graphical analysis of data and applying mathematical concepts to field problems. Prerequisite: Tech Math II, 6.552.

6.540 Slide Rule
3 class hrs/wk 1 cr. F/W/Sp

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. Prerequisite: 4.202 Math II, Elements of Algebra or consent of instructor.

6.609 Study Skills Seminar
0 cr. Sm/F/W/Sp

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.

6.605 Basic Mathematics
4 class hrs/wk 3 cr. Sm/F/W/Sp

Designed as a preparatory course for 2.515, Business Mathematics. Topics include a review of the fundamental operations with whole numbers, fractions, decimals and percentages.

Ed 209 Practicum Teaching Mathematics
1-2 class hrs/wk 1-2 cr. W/Sp

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. Must be taken concurrently with Mth 122, 123.

Bi 101, 102, 103 General Biology
6 class hrs/wk 4 cr. Sm/F/W/Sp

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, 212, 213 Biology for Majors
7 class hrs/wk 5 cr. F/W/Sp

An introductory biology sequence intended for students entering fields including pre-medicine, secondary science education and the biological sciences.

Bi 211: Ecology, ecosystem dynamics, genetics, behavior and evolution.

Bi 212: Animal, plant and cellular physiology and developmental biology.



Bi 213: Cellular and molecular structure, organization and function.

Prerequisites: Math 100 and Ch 104 concurrently.

Bot 201, 202, 203 General Botany
6 class hrs/wk 4 cr. F/W/Sp

Bot 201: Anatomy, physiology, development and genetics of seed plants.

Bot 202: Survey of plant kingdom. Prerequisite: Bot 201.

Bot 203: Identification of native plants, use of taxonomic keys, and floral morphology.

4.222-4 Integrated Basic Science I, II, III (ADN)
7 class hrs/wk 4 cr. F/W/Sp

An integrated science course offered to students in the Health Sciences. Including principles of physical science and mathematics, microbiology, anatomy and physiology.

4.220-1 Integrated Basic Science I, II (Dental)
4-6 class hrs/wk 3-4 cr. Sm/F/W/Sp

An integrated science course offered to Dental Assistant students. Includes principles of general anatomy and physiology, anatomy and physiology of the head and teeth, microbiology, pharmacology and nutrition. Note: 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 program.

4.211 Nutrition I
3 class hrs/wk 3 cr. F

Importance and role of fuel nutrients, vitamins, and minerals in body functioning. Food sources and planning for adequate nutrition. Requirement for and recommended allowance of the various nutrients.

4.212 Nutrition II
3 class hrs/wk 3 cr. W

Principles of modifications in the diet to meet special needs of the body in disease. Prerequisite: 4.211.

4.205, 206 Basic Chemistry I, II
5 class hrs/wk 4 cr. Sm/F/W

An introductory two-quarter 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, 4.202 or 6.551 or consent of instructor.

Ch 101, 102, 103 General Chemistry
5 class hrs/wk 3 cr. F/W/Sp

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, 105, 106 General Chemistry
7 class hrs/wk 5 cr. F/W/Sp

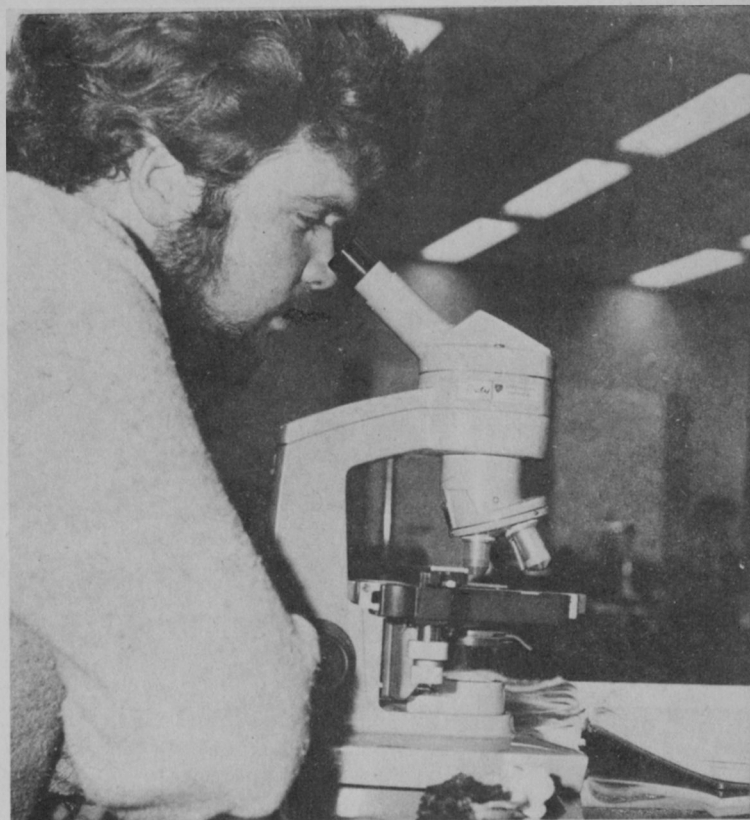
A general inorganic chemistry sequence providing an understanding of atomic structure and interactions of molecules and ions. Establishes foundation for further study of chemistry. Students transferring to Oregon State University will have to take Ch 107 in order to take advanced chemistry lab courses. Prerequisite: High school chemistry desirable, Math 101 and Ch 104 concurrently.

Ch 107 General Chemistry Lab
6 class hrs/wk 2 cr. Sm/W

Laboratory work to complete the instruction given in Ch 104, 105, and 106 and to prepare students for more advanced laboratory training in chemistry. Prerequisite: Ch 106.

Ch 226, 227, 228 Organic Chemistry
3 class hrs/wk 3 cr. F/W/Sp

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 cr. Sp

A laboratory course taken concurrently with Ch 228. Prerequisite: Ch 107.

4.300, 302 Practical Physics
5 class hrs/wk 4 cr. W/Sp

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 Math II or equivalent, as a prerequisite to the course. Mth 1.110 is also desirable. Offered on Pass/No Pass option.

4.300: Measurement, matter, mechanics, machines, and heat.

4.302: Light, sound, magnetism, electricity, electronics, and nuclear energy.

Prerequisite: 4.202 Math II or equivalent.

GS 104, 105, 106 Physical Science
5 class hrs/wk 4 cr. F/W/Sp

Survey course in physical science intended to provide 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, 202, 203 General Physics
6 class hrs/wk 4 cr. F/W/Sp

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: Math 100.



Social Science Division

Social Science is an activity of living men, and like such activity is constantly growing and changing. The general aim of the social science curricula is to help each student 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. The program also strives to suggest ways of applying that knowledge in life situations that are encountered by a majority of people.

ECONOMICS

Economics is the social science that is concerned with the things that men want and how they go about acquiring them.

- Econ 201 Principles of Economics**
3 class hrs/wk 3 cr. F
Introduction to Micro-Economics theory, policy, and institution. Includes principles underlying production, exchange and distribution.
- Econ 202 Principles of Economics**
3 class hrs/wk 3 cr. W
Introduction to Macro-Economics theory, policy and institution. Includes practical problems relating to monetary and banking policy, consumption, investment, unemployment and inflation.
- Econ 203 Principles of Economics**
3 class hrs/wk 3 cr. Sp
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

Each of the disciplines of social science is concerned with some fundamental aspect of man's existence. History studies man in time; geography studies him in space.

- Geog 105 Introductory Geography**
3 class hrs/wk 3 cr. F
An introductory analysis of the physical aspects of the geographic landscapes, with emphasis on the genesis and characteristic features of climate, vegetation, soil, and land from zones of the earth's surface and their areal associations.
- Geog 106 Introductory Geography**
3 class hrs/wk 3 cr. W
Survey of human occupants patterns of the world to aid in understanding special differences in people and environments.
- Geog 107 Introductory Geography**
3 class hrs/wk 3 cr. Sp
Survey of the location, characteristics and relationships of world economic activities.

HISTORY

The first important idea to grasp in studying history is that the truths we generally accept as modern reality are in fact not only occurrences which seem remote, but also we are studying the truths of our own environment in their original form. Cicero said: 'To be ignorant of what happened before you were born is to be ever a child.'

- Hst 101 History of Western Civilization**
3 class hrs/wk 3 cr. Sm/F/W
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 History of Western Civilization**
3 class hrs/wk 3 cr. Sm/W/Sp
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.

CHAIRMAN:

James Barnes

FACULTY:

Douglas Clark, Political Science
Russell Durham, U.S. History
Max Lieberman, Sociology
Maribel Montgomery, Psychology

ANTHROPOLOGY

Anthropology is concerned with five major areas: prehistory (including archaeology and evolution), physical anthropology, linguistics, ethnology, and social and cultural anthropology.

- Anth 101 General Anthropology**
3 class hrs/wk 3 cr. F
Examination of man's morphological variation and physical evolution. (Physical Anthropology)
- Anth 102 General Anthropology**
3 class hrs/wk 3 cr. W
Examination of man's prehistorical cultural traditions, i.e., those which have no living bearers. (Archeology)
- Anth 103 General Anthropology**
3 class hrs/wk 3 cr. Sp
Examination of man's cultural variation throughout the historical world. (Cultural Anthropology)
- Anth 207 Cultural Anthropology**
3 class hrs/wk 3 cr. F
Examination of man's cultural traditions at the band and tribal-chieftdom levels, including discussion of the major theoretical concepts of cultural anthropology that apply to this level of cultural evolution.
- Anth 208 Cultural Anthropology**
3 class hrs/wk 3 cr. W
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 Cultural Anthropology**
3 class hrs/wk 3 cr. Sp
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.



Hst 103 History of Western Civilization
 3 class hrs/wk 3 cr. Sm/F/Sp
 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 History of the United States
 3 class hrs/wk 3 cr. F
 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 History of the United States
 3 class hrs/wk 3 cr. W
 The history of the United States from the presidency of Jackson, through the Civil War and Radical Reconstruction, the conquering of the West, the ascendancy of industry, the early labor movement, and the ultimate emergence of our nation as a world power.

Hst 203 History of the United States
 3 class hrs/wk 3 cr. Sp
 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.

Hst 101-3 is offered as a mini-course during summer term. A full sequence of 9 credits would be covered in a 9-week period.

POLITICAL SCIENCE

Political Science is concerned with the distribution of power in societies and the implications of the power distribution. In other words the focus is politics and the forms that politics take in society, both public and private. As Harold Lasswell described it: 'Politics is the process of who gets what, when and how'.

Ps 201 American Governments
 3 class hrs/wk 3 cr. F
 A study of the principles of American constitutional system, political process, and organization of national government.

Ps 202 American Governments
 3 class hrs/wk 3 cr. W
 A study of the powers and functions of national government.

Ps 203 American Governments
 3 class hrs/wk 3 cr. Sp
 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 cr. F/W/Sp
 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 cr. F/Sp
 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

The study of Psychology provides a familiarity with basic methods and principles that can enhance personal functioning in a variety of life situations.

Ed 207 Leadership
 2 class hrs/wk 2 cr.
 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 hr/wk 1 cr.

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 cr. F/W/Sp

Experience in interpersonal communication and group dynamics, with emphasis on the communication of feelings.

Psy 201 General Psychology
3 class hrs/wk 3 cr. F/W

A focus on the scientific procedures employed in the study of behavior. Examine the human in the perspective of a biological organism sharing many features in common with other animals. Consider specific methods devised by psychologists to study animal behavior. Review the current knowledge about animal learning and motivation gained through the use of these methods.

Psy 202 General Psychology
3 class hrs/wk 3 cr. W/Sp

Emphasis is placed on the unique characteristics of the human as the most complex organism yet evolved on earth. Includes tracing some common patterns of human development paying particular attention to perception, and linguistic and cognitive abilities; detailed study of the senses and how environmental features are represented within the nervous system; consideration of 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 General Psychology
3 class hrs/wk 3 cr. Sp

Study of individual differences in behavior displayed within the human species and the special techniques necessary to study them. Examination and comparison of a variety of current theories of personality. Discussion of characteristics of individuals with behavior disorders and review of various kinds of therapy employed to help the disorganized person. Review of studies relating to interactions of humans in small groups. Prerequisite: Psychology 202.

1.606 Intro. to Psychology & Human Relations
3 class hrs/wk 3 cr. F/W/Sp

Help prepare students to solve potential work oriented individual and/or interpersonal behavioral problems. Includes study of fundamental psychological principles of development, personality, motivation, conflict, group behavior and occupational choice.

SOCIOLOGY

Sociology is the scientific study of human social behavior. Sociology studies the processes and patterns of individual and group interaction, the forms of organization of social groups, the relationships among them, and group influences on individual behavior. Although sociology includes the study of all forms of social interaction and interrelationships, it has focused on the understanding of group or other collective factors in human behavior.

FI 222 Marriage Preparation
3 class hrs/wk 3 cr. F/W

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-work time, divorce, and alternatives to marriage.

FI 223 Family Living
3 class hrs/wk 3 cr. Sp

Emphasis is placed on the relationships of the married couple and parenthood. Topics covered include role conflict, marital adjustments, crisis of marriage and resources to strengthen family life. Continued attention will be given to developing skills and competencies involved in interpersonal relationships.

***Soc 204 General Sociology**
3 class hrs/wk 3 cr. Sm/F/Sp

Introduction to the sociological perspective: the components of society and social organization; culture; socialization; stratification.

***Soc 205 General Sociology**
3 class hrs/wk 3 cr. Sm/F/W

Analysis of major sociological institutions.

***Soc 206 General Sociology**
3 class hrs/wk 3 cr. Sm/F/Sp

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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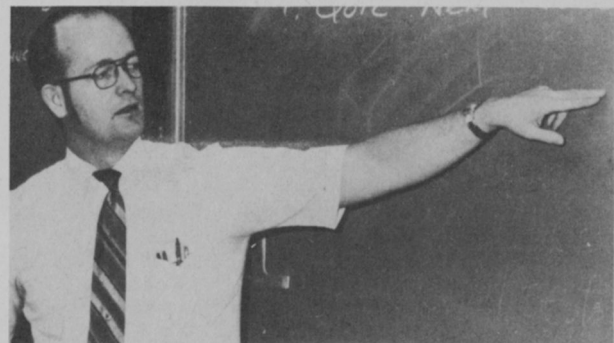
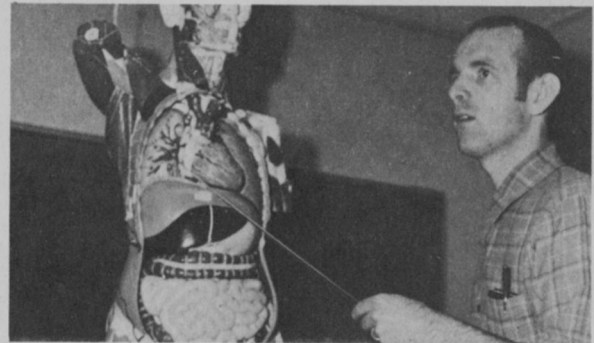
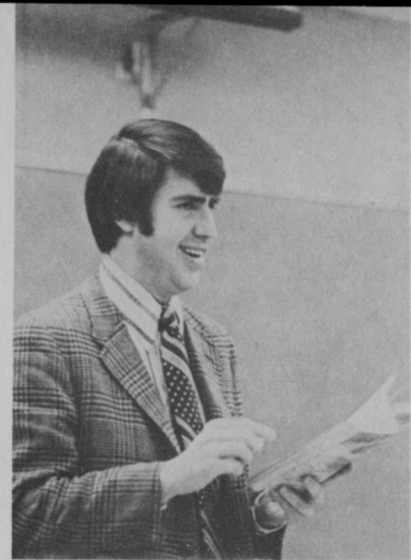
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- 7 Academic Regulations
- 35 Accounting Technology
- 3 Accreditation
- 90 Administration and Staff
- 5 Admission Regulations
- 5 Admission to Special Programs
- 24 Adult Basic Education
- 14 Adult High School Diploma
- 67 Agriculture Business
- 87 Anthropology
- 22 Apprenticeship
- 48 Art
- 73 Associate Degree Nursing
- 14 Athletics
- 55 Auto Body Repair
- 56 Automotive Technology

- 84 Biology
- 32 Business Division
- 33 Business Management

- 85 Chemistry
- 36 Clerical Services
- 24 Community Education
- 14 College Center
- 11 College Work Study
- 71 Cosmetology
- 9 Counseling
- 8 Credit Limit Rule
- 8 Credit by Examination
- 72 Criminal Justice Studies

- 34 Data Processing
- 74 Dental Assistant
- 15 Diplomas and Certificates
- 25 Disadvantaged and Handicapped Students
- 58 Drafting Technology

- 87 Economics
- 45 English Composition
- 60 Environmental Technology

- 91 Faculty
- 7 Fees
- 10 Financial Aids
- 70 Fire Science
- 15 Food Services
- 70 Food Services Program
- 46 Foreign Language
- 5 Foreign Students
- 5 Full-time Student

- 36 General Business
- 14 General Education Development (GED)
- 55 General Industrial Technology
- 87 Geography
- 15 Graduation Requirements
- 9 Grading Standards
- 50 Graphic Arts
- 16 Graphic Services
- 7 Golden Age Group
- 9 Guidance Services

- 81 Health
- 9 Health Services
- 77 Heating, Air Conditioning and Refrigeration
- 87 History
- 3 History and Development of the College
- 24 High School Continuation
- 14 Housing
- 44 Humanities Division

- 52 Industrial Technology Division

- 46 Journalism

- 45 Language Arts
- 16 Learning Services
- 16 Library
- 46 Literature

- 62 Machine Technology
- 26 Master Schedule
- 83 Mathematics
- 16 Mathematics Lab
- 63 Metallurgical Technology
- 47 Music

- 66 Occupational Services Division
- 19 Occupational-Technical Programs

- 73 Nursing Assistant
- 76 Nurse Refresher Course

- 76 Parent-Child Education
- 5 Part-Time Students
- 47 Performing Arts
- 51 Philosophy
- 3 Philosophy of the College
- 78 Physical Education & Health Division
- 85 Physical Science

13 Placement Service
 88 Political Science
 18 Programs and Courses of Study
 88 Psychology

11 Student Loans
 14 Student Organizations
 4 Student Personnel Services
 17 Study Skills Center
 35 Supervisory Training

77 Recreational Vehicle Repair
 7 Refunds
 6 Registration Procedures
 5 Residency

9 Testing
 9 Transcripts
 19 Transfer Programs
 7 Tuition and Fees

82 Science and Mathematics Division
 33 Secretarial Sciences
 36 Secretarial Services
 53 Sewage Plant Operator Programs
 86 Social Science Division
 89 Sociology
 46 Speech
 14 Student Activities
 12 Student Grants

13 Veterans
 48 Visual Arts
 25 Vocational Training for Disadvantaged and Handicapped

54 Wastewater Technology
 65 Welding





