

**Linn-Benton  
Community  
College**



**catalog**  
**1974-75**



# calendar

## FALL TERM, 1974

Registration (two sessions)

Session One - Continuing Students Only

Begins: May 20

Ends: June 7

Session Two - New and Continuing Students

Begins: August 26

Classes Begin	September 30
Last Day to Register Full-Time	October 4
Veteran's Day Holiday	November 11
Thanksgiving Holiday	Nov. 28-Dec. 1
Last Day to Drop with Automatic 'W'	December 13
Final Exams	Dec. 16-18
Last Day of Fall Term	December 20
Christmas Recess	Dec. 23-Jan. 5

## WINTER TERM, 1975

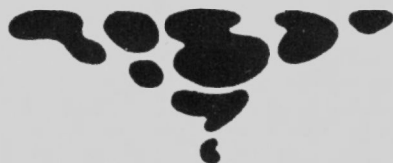
Registration Begins (All Students)	November 25
Classes Begin	January 6
Last Day to Register Full-Time	January 10
Last Day to Drop with Automatic 'W'	March 14
Final Exams	March 17-19
Last Day of Winter Term	March 21
Spring Recess	March 22-30

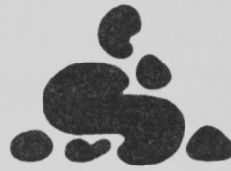
## SPRING TERM, 1975

Registration Begins (All Students)	March 3
Classes Begin	March 31
Last Day to Register Full-Time	April 4
Memorial Day Holiday	May 26
Last Day to Drop with Automatic 'W'	June 6
Final Exams	June 9-11
Graduation	June 13
Last Day of Spring Term	June 13

## SUMMER TERM, 1975

Registration Begins	May 26
Classes Begin	June 23
Last Day to Register Full-Time	June 27
Independence Day	July 4
Last Day to Drop with Automatic 'W' - Eight week session	August 8
Final Exams - Eight week session	Aug. 11-13
Last Day to Drop with Automatic 'W' - Ten week session	August 22
Final Exams - Ten week session	Aug. 25-27
Last Day of Summer Term	August 29





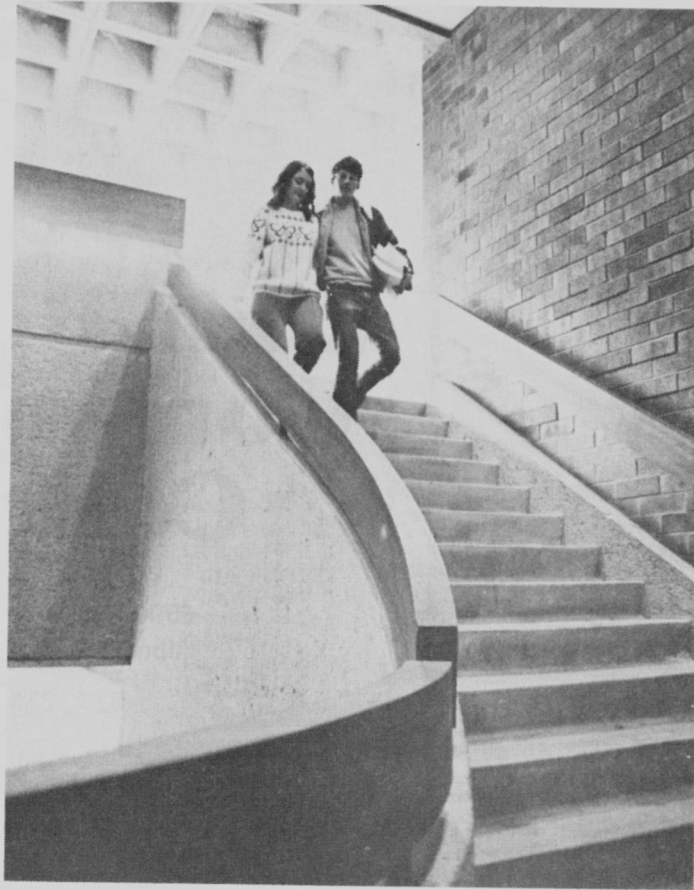
# **Linn-Benton Community College**

6500 S.W. Pacific Blvd.  
Albany, Oregon 97321

928 - 2361

## **1974-75**

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## THE PHILOSOPHY & DEVELOPMENT OF THE COLLEGE

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

### BELIEFS:

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

### IMPLEMENTATIONS:

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

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

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

### GUIDELINES

These guidelines are used in evaluating the operation of LBCC:

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

## THE HISTORY & DEVELOPMENT OF THE COLLEGE

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

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

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

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

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

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

Ground-breaking ceremonies for preparation of the college site were held on September 17, 1970. Bids for construction of the first phase of the permanent campus buildings were awarded in the summer of 1971. Occupancy of the first ten buildings was completed in the spring of 1973 and the first phase construction will be completed by the fall of 1974.

## 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.

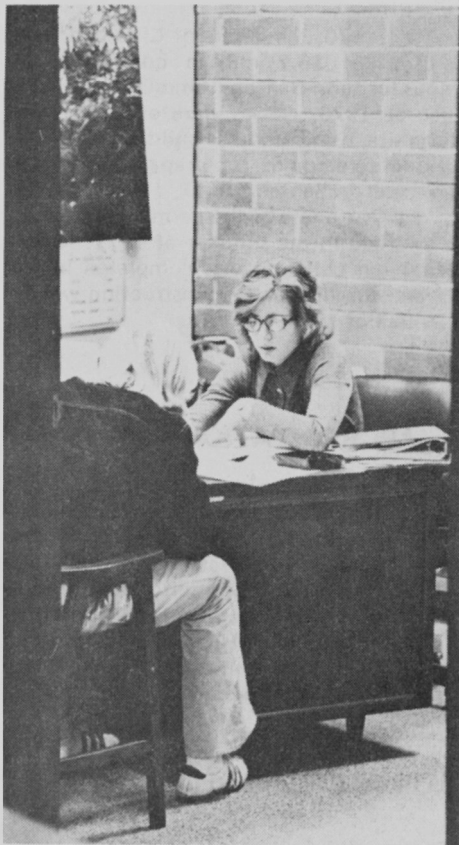
Linn-Benton Community College is fully accredited by the Oregon State System of Higher Education and Oregon State Board of Education, and offers a variety of programs approved by the Veteran's Administration.

## NONDISCRIMINATION

Linn-Benton Community College provides equal access to learning for all applicants without regard to race, color, religion, sex or national origin in compliance with state and federal law.



# Student Personnel Services



**Dean of Students**

Lee Archibald

**Admissions and Registration**

Jon Carnahan, Director

Sue Cripe, Assistant Registrar

**Financial Aids and Placement**

Mike Patrick, Director

Dave Haugen, Coordinator Office of Veterans Affairs

Rita Lambert, Financial Aids Counselor

**Guidance Services**

Robert Talbott, Director

Janet Brem, Guidance Counselor

Joyce Easton, Health Counselor

Raymond Miller, Guidance Counselor

Blair Osterlund, Guidance Counselor

Richard Otto, Guidance Counselor

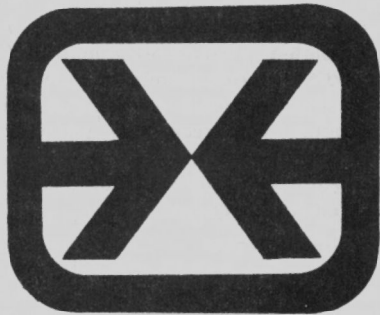
Ann Marie Walker, Guidance Counselor

**Student Activities**

Robert Miller, Director

Judy Green, Coordinator Clubs and Organizations

Doug Hurst, Manager Food Services

**ADMISSIONS****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 equivalency certificate. 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 judgement 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. (Admission requirements for health occupations are outlined below.) The College 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:

1. Application for Admission;

2. Official copy of their high school transcript or if attended college, official copies of all college work;

3. Results of Career Guidance and Placement (CGP) Examination. See page 8 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.)

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

**Part-Time Admission**

Students enrolling for 7 or fewer credits or enrolling on a non-credit basis may apply at the time of registration, and are not required to secure transcripts of previous high school or college work unless they plan to graduate from LBCC. Part-time students are unclassified for admission purposes. Admission of unclassified students to selected credit programs and classes is on a space available basis.

**Readmission**

Matriculated students who have discontinued attendance for one quarter or more, not counting summer term, may apply for reenrollment in the Admissions Office by completing a Reenrollment Application. Students who have attended another college or university during the interim are to also submit an official transcript from that school.

**Special Admission**

Persons qualified by maturity and ability, 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 Director of Admissions.

**Admission of Non-High School Graduates (Special Students)**

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

\*See Special Admission for limitations.

**Admission of High School Students****Part-Time Simultaneous:**

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

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

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

**Full-Time or Non-Simultaneous:**

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

**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 Director of Admissions for specific admissions requirements. Applications should be on file at least three 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.\*

\*See Special Admission.

**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.

**Associate Degree Nursing (RN Two Years)\***

ADN applicants must: (1) have application and transcripts on file by March 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) have total application file reviewed by the Admissions Committee. (4) be available for admission interview if recommended by the committee. (5) if accepted, file a complete physical exam form. Specific admissions criteria for the ADN program is available in the Admissions Office.

ADN applicants will be notified of the disposition of their application by June 1. Individuals are required to apply no later than March 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)\***

Two classes are offered each year, one beginning winter term, in January, and one beginning summer term, in June. Dental Assistant applicants must: (1) have application and transcripts on file by November 1 for the winter term class, or May 1 for the summer term class. (2) complete all regular admission steps. (3) complete the Comparative Guidance and Placement (CGP) Examination. (4) file a completed physical examination form with the Admissions Office.

The total application will be reviewed by the Admissions Committee. Individuals who wish to seek admission should apply no later than November 1, or May 1.

Applicants will be notified of the disposition of their application by December 15, or June 1. The Dental Assistant Program begins each summer and winter quarter and continues for four quarters. For further information students should contact the Admissions Office.

\* See General Policy, page 5.

**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 students should contact the Admissions Office.

**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.

**Classification of Residency**

A resident student, for tuition and fee paying purposes, is a student whose parents are bona fide residents of the Linn-Benton Community College District. A student who is 18 years of age, or who is married, and who is entirely self-supporting, may qualify as a resident if he can satisfactorily present evidence that he has established his permanent residence in the Linn-Benton Community College District at least three months prior to his registration for the term. A veteran who registers for classes at Linn-Benton Community College within 90 days of his discharge from active duty will be considered a resident for tuition and fee paying purposes. All other students are required to pay either an out-of-district or out-of-state non-resident fee as outlined in the tuition schedules.

**REGISTRATION PROCEDURES****Credit Classes**

1. Complete all admission requirements (see page 5).
2. Pre-registration advisor 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 or her program is encouraged to contact the Guidance 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 windows 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 Center in Corvallis or East Linn Center in Lebanon.

**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
Drop fee	No Charge
Credit by Examination (per credit)	\$ 8.00
Career Guidance and Placement Examination	\$ 5.00
*Student Medical Insurance (12 months starting Fall Term)	\$40.50
Late Registration Fee	
Eight credit hours or more	per day \$ 1.00
Maximum charges	\$10.00
Seven credits or fewer, beginning third week	\$ 1.00
Official copy of LBCC transcripts	\$ 1.50
Unofficial copy of transcripts	\$ .50

\*Rates shown are subject to change for 1974-75 school year. Please check with the Registrar's Office for current expenses.

**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; Auto Body Repair; Cosmetology; Heating, Air Conditioning and Refrigeration; Graphic Communications; and Recreational Vehicle Repair) 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 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 may enroll as an auditor on a space available basis after the first day of classes. 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 and Lower Division Credits

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

### 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 an advisor in planning an appropriate transfer program.

### Student Credit Load

Students are considered a full-time student if they register for 12 or more credit hours. Students may mix their schedule by registering for some general studies courses and some vocational-technical courses. If students must work part-time while attending the community college, they 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 (two year) period. No more than 20 credits may be taken in any single term without approval of the Registrar.

### 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 presently enrolled students believe they have mastered the material presented in a certain course, or have had equivalent work experience, they may request credit by examination ("challenge"). This may be accomplished by: (1) enrolling in the class and

presenting a request directly to the instructor (without additional cost if a full-time student), or (2) apply at the Guidance Center if not enrolled.

Students may challenge no more than 15 credits in one quarter without special approval from the Registrar.

### 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 Guidance Center. For testing information, contact the Guidance 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
NE	— No Entry
AU	— Audit

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 Points Per Credit
I	— 0 Grade Points Per Credit, No Hours Attempted
*W	— 0 Grade Points Per Credit, No Hours Attempted
P	— Credit Earned, Not Computed in GPA
N	— 0 Grade Points Per Credit, No Hours Attempted
NE	— 0 Grade Points Per Credit
AU	— 0 Grade Points Per Credit

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

### Pass (P) Option

Certain courses listed in the schedule have an "OPT" designation indicating that each student in that class has the option of taking the course for the usual letter grade or taking it on a pass (P) basis. The maximum number of "P" credits allowed toward an LBCC degree will be 16 hours, not including those with mandatory pass (P) grading. Students should consult with a counselor before deciding to choose the pass (P) grade. It is not advisable for a student to choose the "P" grade in a course that is considered a major course in his field of study. Students process requests for pass (P) through the instructor of the class. Students planning to transfer to a four-year institution should check that institution's requirements regarding "P" grades.

### Academic Probation

New students will be placed on probation if during their first quarter of attendance their grade point average drops below 1.7 or during their second and subsequent quarters their accumulative grade point average drops below 2.00. This rule applies to those students who are carrying 8 or more credits for any single term.

Transfer students who are on probation or who have been suspended from another institution of higher education will automatically be admitted to Linn-Benton Community College on probation. At the completion of one quarter carrying 8 or more credits, a transfer student's probation status will be based only on the grade point average earned at Linn-Benton Community College, and will be consistent with the above.

Students are also expected to complete those courses for which they have registered. A student may be subject to academic probation if he consistently fails to complete his coursework.

All students will be required to have a 2.00 all-college accumulative grade point average to meet graduation requirements for Associate Degree programs.

A student who has been on academic probation for three consecutive quarters will be subject to suspension.

### Honor Roll

Those students who obtain a grade point average of 3.33 or better and have carried an 8 credit hour load or more of graded work will be placed on the Honor Roll List for that quarter.

### Transcripts & Records

Student LBCC official transcripts may be secured through the Records Office at a cost of \$1.50 each. Unofficial copies are available for \$.50 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.

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.

## DEGREES, DIPLOMAS, CERTIFICATES, GRADUATION REQUIREMENTS

LBCC offers the Associate of Science, Associate of Arts and Associate of General Studies degrees. 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 of 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 three credits in each of two areas.

\*See Waivers and Exceptions.

\*\* The Humanities group includes such courses as Art, Drama, Foreign Language, Literature, Music, 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.

**General Requirements for Associate of 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, six credits (WR121 plus WR122 or WR123.).
  - \* b. Physical Education activity courses, (three credits recommended, but need only meet requirements of transfer college of choice).
  - c. A credit course in Health.
  - \*\* d. A minimum of nine 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.

**Requirements for Associate of 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. Six credit hours of English.
  - b. Two credit hours of Health.
  - \* c. Three credit hours of Physical Education.
  - d. Two or three credit hours of Group Relations.
  - \*\*\* e. Nine credit hours of Humanities
  - \*\*\* f. Nine credit hours of Social Science
  - \*\*\* g. Nine 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.

\* See Waivers and Exceptions.

\*\* The Humanities group includes such courses as Art, Drama, Foreign Language, Literature, Music, 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.

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

**Community Education Classes**

Individuals who enroll for a Community Education class may use the class for graduation purposes.: 1) If it is a credit class. 2) If it is listed in the catalog it may be used in the fulfillment of elective or specified graduation requirements. 3) If it is not listed in the catalog it may be used in the fulfillment of elective requirements for the Associate of General Studies.

**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.

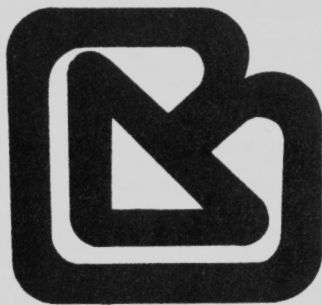
**Waivers and Exceptions**

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.



## **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 matriculated students will have an appointment with a professional counselor who will assist students in evaluating their academic records and in selecting courses that are appropriate for a chosen major. LBCC provides advising assistance for matriculated students throughout the school year. For further information contact the Guidance Director.

### **Counseling**

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

### **Testing**

LBCC requires the Comparative Guidance and Placement Test (CGP) for all full-time students. This test battery is administered by the Guidance Center and costs the student \$5.00. The CGP takes between 3½ to 4 hours and the results are used for counseling and placement purposes. Call or visit the Guidance Center for further information including test dates.

The Guidance Center also administers the high school equivalency test (GED), and the College Level Examination Program (CLEP). For further information and testing fees, contact the Guidance Center.

### **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 a.m. to 5 p.m. week days.

### **Health Insurance**

LBCC makes available to students a comprehensive sickness, hospitalization and accident insurance program at reasonable rates. If students are not covered by their parent's insurance, they should certainly consider this health insurance. Coverage is also available for dependents of married students.



# FINANCIAL AID AND PLACEMENT

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 Service 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 1974-75

**Entering freshman:** file a State of Oregon Financial Aid Application for the 1974-75 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 Service.

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 Services. 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 freshmen should file application prior to May 1, 1974, 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 1974 . . .	On or before April 5, 1974
Students Entering Fall Term 1974 . . . . .	On or before May 1, 1974
Students Entering Winter Term 1975 . . . . .	On or before November 22, 1974
Students Entering Spring Term 1975 . . . . .	On or before February 7, 1975

### College Costs

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

College Budgets	Single At Single Away		
	Home	From Home	Married
Tuition and Fees	\$ 288	\$ 288	\$ 288
Books & Supplies	180	180	180
Room & Board	600	1400	2400
Personal Expense	450	450	450
Transportation (Estimate)	500	500	500
	<hr/>	<hr/>	<hr/>
	\$2018	\$2818	\$3818

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
Freshman Autobody Repair . . . . .	\$100 Tools
Dental Assistant . . . . .	\$200 Uniforms & Supplies
Freshman Drafting Technology . . . . .	\$75 Supplies
Freshman Associate Degree Nursing . . .	\$150 Books & Uniforms — \$150 Mileage
Sophomore Associate Degree Nursing . . .	\$300 Mileage
Graphic Arts . . . . .	\$100 Supplies

### 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 \$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 \$1500 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 ten months after leaving college, except when deferment status is obtained.

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

### Guaranteed Student Loans

Loans of up to \$1500 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 received 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. Ten percent 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 Service. 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 to pay tuition and book costs 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:

Students may apply by using the standard Law Enforcement Education Program form, available from the Financial Aids Service.

### 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 Nursing program may apply for Nursing Loans repayable commencing nine months after the student leaves school. A borrower who later becomes employed or a full-time nurse can have up to 85% of the loan obligation cancelled. Contact the Financial Aids Service for details.

### State Need Grants

The Oregon State Scholarship Commission provides cash awards to students with exceptional financial need. The total award will not exceed \$500 per year per student.

These awards are normally renewable for four years if the student remains in good standing.

### Basic Opportunity Grant

Grants are available to full-time students with exceptional financial need. Amounts for the grants range from \$50 to \$1400 each year. Exceptional financial need normally refers to those families whose gross income is less than \$9000. A separate application is required and may be obtained in the Financial Aids Service.

### 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 Service. 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. It is recommended that interested individuals contact the Financial Aids Coordinator or high school principal or counselors for additional information.

### Deferred Tuition Loans

Entering and returning *full-time* students may apply at the Financial Aids Service 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. Ten percent simple annual interest (50 cents per month on \$60) 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 Service 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.



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 complement 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 organization 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 Office in the Activities Center.

### Sports Clubs

The sports club program provides the student with opportunities for inter-city and inter-county competition as well as an opportunity for the development of leisure activity. 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 Office in the Activities Center.

### 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, cross country, women's gymnastics, rodeo and track. Students interested in participation should contact the Coordinator of Intercollegiate Athletics at the Activities Center.

### Music

The college offers several opportunities in the musical performing arts, among them the well known *Tomorrow's People*. Individuals interested in participation should contact the Music Department located in the Humanities Building.

### Drama

In years past, LBCC has provided opportunity for students to participate in drama productions for the student body and community. Last year's performances included *The Matchmaker* and *The Girl in the Freudian Slip*. Individuals who are interested in theater, acting, or production, should contact the College Center Office.

### Publications

A number of publications are produced by the students of LBCC. The College newspaper, *The Com-muter*, has received acclaim throughout the state. Students interested in participation should contact the Journalism Department through the Humanities and Social Services Division Office in the Humanities Building.

### College Center

The College Center serves as the gathering place for all members of the College community—students, faculty, administrators, 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 p.m. Monday through Thursday, and from 7:30 a.m. until 5 p.m. on Fridays.

### Food Service

Located on the second level of the College Center the food service provides a variety of menu offerings for students, staff, 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 8:30 a.m. until 3:30 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 available in the College Center Office) is updated each quarter in order to facilitate locating accommodations with minimum delay.

### Bookstore

The Bookstore provides all the required textbooks and miscellaneous supplies and materials which a student will require while attending LBCC. Profits from the Bookstore help support the extra-curricular activities and programs at LBCC. The Bookstore is located in the College Center and is open from 8 a.m. to 5 p.m. Monday through Friday, and 6:30 p.m. to 8:30 p.m. Tuesday and Wednesday, unless otherwise posted.

### Parking

Linn-Benton Community College provides free parking for students and staff on a first-come, first-serve basis. Certain areas are designated for specific uses.

*Handicapped parking permits are available through the Dean of Students Office.* Parking and traffic rules are available through the Dean of Students Office. Cars improperly parked will be ticketed and subject to fines.



# Programs of Study

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. Generally, courses numbered 50-299 have been approved for transfer and are survey of foundation courses. These courses satisfy group requirements in the language and literature, science and social science groups. Courses numbered 100-199 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.

### 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.

Suggested transfer curricula guides for bachelor degree programs which may be started at LBCC may be found on the following pages:

Agriculture/Science . . . . .	81
Business . . . . .	49
Business Administration . . . . .	49
Business Education . . . . .	49
Criminal Justice . . . . .	66
Dental Hygiene . . . . .	81
Dentistry . . . . .	81
Distributive Education . . . . .	49
Economics . . . . .	49
Elementary Education . . . . .	66
Engineering . . . . .	81
Fine Arts . . . . .	67
Forestry . . . . .	81
Humanities . . . . .	67
Music . . . . .	67
Pharmacy . . . . .	81
Physical Education . . . . .	29
Science/Agriculture . . . . .	81
Secondary Education . . . . .	67
Social Science . . . . .	67

### 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 and 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.

### COOPERATIVE WORK EXPERIENCE

Coordinator: Marv Clemons

Development of employment habits and attitudes under the direction of the college coordinator. Designed for the student that has a specific occupational goal but desires experience on the job.

Students with established career goals, and are taking courses related to those goals, should enroll in Supervised Field Experience 1.200/WE201.

*1.200/WE201 Supervised Field Experience* is a course designed to give the students actual work experience which closely parallels their field of study. The student is supervised and evaluated by the Instructor/Coordinator from the college and his employer. The student can earn from three (3) to sixteen (16) credits per term. The minimum amount of time spent on the job per week is six (6) hours. The student is required to attend a one-hour seminar per week in addition to his hours on the job. Entry is by petition for students working, or by placement through the Cooperative Work Experience office. Students wishing to participate should sign up in the Cooperative Work Experience office, room CC-123.

Students wishing to upgrade their employable skills—knowledge of job market, job finding techniques, interview techniques, and resume writing ability—but are not interested in or prepared for Supervised Field Experience 1.200/WE201, should sign up for 1.202 Field Experience Seminar.

*1.202 Field Experience Seminar* is a course designed to provide opportunity for students involved in *1.200/WE201 Supervised Field Experience* to share work related experiences in a seminar situation with their work experience coordinator and fellow field placement students. Content presented at the seminar includes orientation to Cooperative Education, employable skills, basic planning, basic economics. This course is required for all students enrolled in 1.200/WE201 Supervised Field Experience and is open to any other students wishing to participate. The seminar meets one hour per week and offers one hour of credit.

See Also:

Gen. Supervised		Science	1.200/WE201
Field Exp.	1.200/WE201	Graphics	1.200/WE201
Machine Tech.	1.200/WE201	Criminal Justice	
Welding Tech.	1.200/WE201	Adm.	1.200/WE201
Auto Tech.	1.200/WE201	Human Serv.	1.200/WE201
Metallurgy	1.200/WE201	Sec./Clerical	1.200/WE201
Drafting Tech.	1.200/WE201	Data Proc.	1.200/WE201
Agriculture	1.200/WE201	Bus. Mgt.	1.200/WE201
Dental	1.200/WE201	Physical Ed.	1.200/WE201

### 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.

**RESERVE OFFICERS TRAINING CORPS**

Linn-Benton Community College students, in cooperation with Oregon State University, may enroll in the Army Reserve Officers Training Corps. Students who wish to enroll in this program may apply and attend classes at Linn-Benton Community College or at OSU depending upon class size. Instruction in the Military Science Department is designed to produce junior officers for the United States Army in both the regular and reserve components. Registration will be processed through LBCC and the student will be registered in the Army R.O.T.C. program as a Special Student.

**Missions & Objectives.** The Army ROTC selects and prepares young men and women through a program of Army instruction coordinated with the students' normal academic curriculum, to serve as officers in the Regular and Reserve components of the Army, Navy, Air Force, and Marine Corps. Each of the units strives to develop in students a capacity for leadership, to develop them morally, mentally, and physically, and to provide them with the basic working knowledge required of a young officer. Students in each of the units receive uniforms to be worn at drill periods and on special occasions.

The Basic Course consists of freshman classes each term for which the student receives one credit hour each, and classes each term of the sophomore year for which he receives 2 credit hours per term. (Students who have not taken the Basic Course may attend a six-week Basic Summer Camp at the end of their sophomore year and also be eligible for the Advanced Course. This provision allows students transferring from junior colleges, graduate students, or students who for other reasons have not taken the Basic Course, to get into the commissioning program.)

For further information please contact Director of Admissions.

The LBCC program will prepare students for occupations in electrical assembling, installing and repairing and as electronic and electrical technicians.

A one-year certificate program will train students to work in various electrical and electronic assembly occupations. The two-year associate degree program will offer training associated with technical positions in electrical and electronics trades.

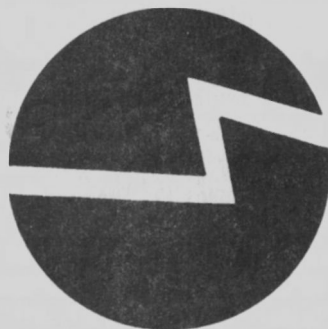
Upgrading courses will be offered to persons already employed in a local business or industry.

Typical job opportunities open to qualified persons in this field include the modification and installation of electrical equipment such as motors, transformers, generators, controls, instruments and lighting systems.

New lab and classroom facilities will be available when the program commences. Instructor: Kent Hansen



**NEW PROGRAMS**



**electricity  
AND  
electronics  
TECHNOLOGY**

Training in Electricity and Electronics Technology will be offered in the fall of 1974 when a new program is planned to begin.

**FARM RECORDS  
MANAGEMENT**

A new agriculture-related program to assist farm families with their management techniques and practices is planned for the fall of 1974.

The Farm Records Management program will provide farm families with a farm management record system and the appropriate educational background to take advantage of data collected by the system.

The farm family enrolling in the program will attend a seminar one day a month and the LBCC instructor will make frequent visits to the farm.

During the seminars information will be discussed which is essential to farm management decision making, such as economic, tax and credit data. When the instructor visits the farm, the record keeping system will be discussed and goals will be set.

As the farm families proceed through the program their management decisions should improve, based on a better understanding of factors that affect farm costs, production and marketing. It is anticipated that each family will participate in the program for a two-to three-year period. Instructor: John Cushman



## HEATING, AIR CONDITIONING AND REFRIGERATION TECHNOLOGY

A new program to train mechanics in refrigeration, air conditioning and heating system work is planned for the fall of 1974.

Students enrolling in the program will acquire skills necessary to perform installation and repair work on cooling and heating equipment used in commercial business.

LBCB will offer a one-year certificate program preparing individuals to be refrigeration mechanics and a two-year associate degree program preparing students for employment as mechanics in refrigeration, air conditioning and heating jobs. Many persons employed in this trade are skilled in more than one type of task.

Related training will include coursework in electricity, industrial math, physics, chemistry, welding, blueprint reading and salesmanship.

People employed in this occupation might work for a dealer or contractor who sells and services cooling and heating equipment, for a fuel oil dealer or gas utility or for a construction company.

Interested students should have a mechanical aptitude and an interest in electricity. New classroom and lab facilities are being constructed at LBCB to house the program. Instructor: Michael Vincent



## RECREATIONAL VEHICLE REPAIR

Beginning in the fall of 1974 a new program will be offered to train people for employment as mechanics in the repair of motorcycles, outboard motors and other small recreational motors and equipment.

Students will be able to choose either a one-year certificate program in small engine repair or a two-year associate degree program providing specialization in one or more fields such as motorcycles, outboard motors, snow mobiles, etc.

Also, related training will be offered in welding, electricity and math. On-the-job training opportunities will be available to help students get "hands on" experience.

The employment outlook for this occupation is excellent as the sale of motorized and nonmotorized recreational vehicles is increasing and competent mechanics are needed for the repair of lawnmowers, chain saws and garden equipment.

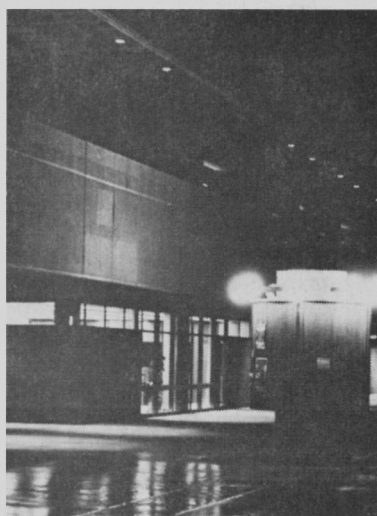


## WOOD TECHNOLOGY

This new program will offer two options, a one-year course of study in building material sales and a two-year degree program in carpentry.

The building materials option will acquaint students with available materials and equipment and their uses in the construction field.

The two-year carpentry option will provide students with a knowledge of carpentry skills which will give the successful students the necessary background to pursue a variety of options in the building trades industry.



# Learning Services

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.

**Director**

William Siebler

**Staff**

Virginia Bowler, Librarian

Marian Cope, Study Skills Instructor

Yvonne Lee, Librarian

Charles Mann, Study Skills, Instructor

James Preston, Coordinator Duplicating Services

Stan Ruckman, Head Librarian

**LIBRARY**

The library maintains a balanced collection which has grown to approximately 23,000 volumes and subscribes to over 450 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-operating 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.

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.

**MATH/MEDIA LAB**

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

Included in the resources available are cassette tapes, video tapes, calculators, programmed materials, and teaching machines. These materials are organized so that a student can informally take an entire course in the math/media 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.

**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.

**1.125 Study Skills  
1 - 3 credits**

Instruction in in-depth methods of study including how to budget your time, how to study for a test, various test-taking tips (essay, multiple choice, etc.), note-taking, outlining and effective listening, and library utilization. The emphasis is on application of technique, using the student's own textbooks.

**1.126 Study Skills Seminar-Lang. Arts  
1 - 3 credits**

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.

**1.128 Study Skills Seminar-Reading  
1 - 3 credits**

This course provides individualized instruction in most reading skills, and in addition, study techniques and listening skills. The instruction offered is primarily remedial or developmental or supplemental to other courses. Diagnosis of deficiencies and interests of the student are used to determine placement.

**1.135 Developmental Reading  
3 cr.**

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 & Studying  
3 class hrs/wk 3 cr.**

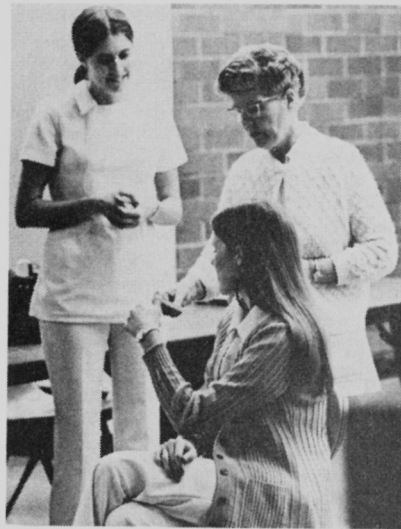
This course provides the student the opportunity to learn many of the study skills and reading skills necessary for him to meet his academic requirements. The study techniques are basic to all students but the emphasis is placed on the needs of the class. The reading skills of comprehension, rate, and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

The Allied Health and Physical Education Division provides both career preparation programs in the allied health field and physical education service courses for students who desire to participate in physical activities. Personal health and first aid are also a part of the division's curriculum.

Vocational programs are offered in associate degree nursing, nursing assistant, dental assistant and related allied health areas. Students completing these programs are qualified to pursue varied occupations in the health services field in hospitals, nursing homes, clinics, or doctors' offices.

The physical education curriculum provides activity classes for students who must take physical education classes to meet graduation requirements and for students who merely desire to participate in individual or team activities.

# Allied Health and Physical Education Division



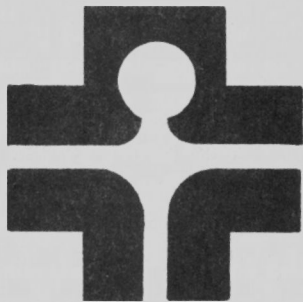


**Director:**

H. Richard McClain

**Faculty:**

- David Bakely, Physical Education
- Vera Collins, Dental Assistant, Program Coordinator
- Arlene Crosman, Physical Education
- Gayle Greene, Associate Degree Nursing, Dept. Coord.
- Verlund "Butch" Kimpton, Physical Education
- Virginia McCraw, Associate Degree Nursing
- Ann Mills, Nursing Assistant, Program Coordinator
- Gerald Morgan, Dental Assistant
- Jacqueline Paulson, Associate Degree Nursing
- Peggy Preston, Associate Degree Nursing
- Adella Wood, Associate Degree Nursing



# 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 recommended for discontinuance at any time, if in the judgment of the nursing faculty the student's performance demonstrates that he or she is unable to cope with the seriousness of nursing situations. A student who is dropped from the program shall not be readmitted to the program except in rare cases, and then only by special permission.

The nursing faculty reserves the right to recommend to the Dean of Students to drop from its rolls any student who has been absent from class more than three hours 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 Coordinator of the Nursing Department and Dean of Students.

Students who are admitted to the Nursing Department shall be required to hold student nurse liability insurance.

**Freshman Year**

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

**Sophomore Year**

Course No.	Course Title	Sm	F	W	Sp
5.721	Nursing IV*	9			
5.722	Nursing V*			12	
5.723	Nursing VI*				8
5.729	Nursing in Contemporary Society*				1
Wr111-2	Writing	3	3		
PE180/190	Physical Education**	1	1	1	
Hst101	History of Western Civilization*	3			
	Humanities				3
Soc204	General Sociology*				3
		16	16	16	

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

- 5.711 **Nursing I**  
9 class hrs. lab/wk 5 cr. F
- 5.712 **Nursing II**  
9 class hrs. lab/wk 5 cr. W
- 5.713 **Nursing III**  
14 class hrs. lab/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.

- 5.721 **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.

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

- 9.424 **Independent Nursing Studies**  
1 hr/wk 1 cr.

This course is designed to provide supervised individual study for matriculating and non-matriculating pre-R.N. or post-R.N. Nursing students. The course content will be geared to the needs of the individual student. One-to-one conferences with instructors, field trips, research assignments, and audio-visuals are utilized for learning.

- 9.426 **Coronary Care Nursing**  
10 class hrs/wk 10 cr. F/W

A course presenting information needed for the registered nurse's role in the Coronary Care Unit. The emphasis is on recognition and treatment of cardiac arrhythmias and emergency procedures such as cardio-pulmonary

resuscitation and electrical resuscitation. Review of normal and abnormal anatomy and physiology of the heart, diagnostic methods, and treatment of cardiovascular disease will be covered. Principles of cardiac monitoring and electrocardiography will be applied.

- 5.633 **Medical Terminology**  
3 class hrs/wk 3 cr. F/W/Sp

A course in Medical Terminology presenting Medical words, work roots, prefixes, suffixes, abbreviations and symbols using a textbook of anatomy, disease and surgeries arranged by anatomical systems.

- 9.405 **Medical Assistant I**  
3 class hrs/wk 3 cr. W

This course is designed to assist doctor's office personnel in becoming proficient in understanding the health problems of the patient, the physician's diagnosis and treatment, and meeting the needs of the patient as they relate to the doctor's office.

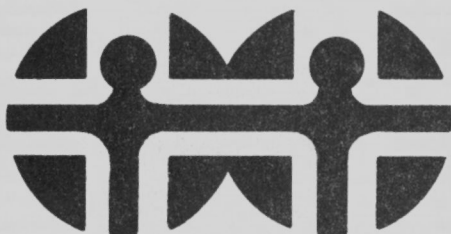
- 9.407 **Medical Assistant III**  
3 class hrs/wk 3 cr. Sp

A continuation of Division I. This course includes preparation of patient and specimen for laboratory tests, basic knowledge of the most frequent laboratory tests, procedures such as blood pressure, temperature, pulse rate, sterilization of equipment and knowledge of the care and use of electrical, optical and examining equipment.

**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.



## 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 careers such as physical therapist and licensed practical nurse.

Course No.	Course Title	Credits
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



## 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 two classes per year, summer and winter 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.

**First Quarter**

Course No.	Course Title	Credits
1.101	Communication Skills I	3
SS122	Typing	2
4.201	Integrated Basic Science I	3
2.751	Prof. Development	3
2.748	or Prof. Development	3
5.445	Intro. to Dental Assisting	3
		<hr/>
		14

**Second Quarter**

Course No.	Course Title	Credits
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
		<hr/>
		14

**Third Quarter**

Course No.	Course Title	Credits
5.453	Dental Pathology	1
5.505	Dental Specialities	1
5.485	Dental Materials - Lab 2	2
5.491	Dental Office Records	3
5.495	Clinical Practice II	4
5.462	Dental Radiology II	1
		<hr/>
		12

**Fourth Quarter**

Course No.	Course Title	Credits
5.510	Office Practicum	8
5.510	Office Practicum Seminar	3
5.463	Dental Radiology III	1
*1.200	Sup. Field Exp.	3-16

\*Information on this on page 17.

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

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. Sm/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/Sp

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. Sm/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. F/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/Sp

An introduction of 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. Sm/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. F/Sp

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/Sp

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. Sm/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. Sm/W

Specialist in the dental profession to acquaint the student with all types of dental specialization. Prerequisite: Integrated Basic Science II 4.202.

**5.510 Office Practicum**  
24 clinical hrs/wk 8 cr. F/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. F/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.



# PHYSICAL EDUCATION AND HEALTH

The Physical Education and Health department 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.

**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 plie, 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 Gymnastics**  
3 class hrs/wk 1 cr. W  
Gymnastics: Instruction and practice in tumbling, trampoline, uneven, 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 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 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 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      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      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.

**PE 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**  
**3 class hrs/wk    3 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.

**PE194/195/294/295 Professional Program**  
6 class hrs/wk 2 cr.

These courses are 2 credit courses meeting 6 hours a week providing technical information for the student who desires to learn to teach various physical education activities.

**TRANSFER CURRICULA**

**PHYSICAL EDUCATION**

The curricula outlined below are intended to help students determine which transfer courses they should take at LBCC based on the four-year degree program being considered and the four-year college to which the courses will be transferred. Before students enroll for any transfer courses they intend to apply towards a bachelors degree they should talk with a counselor.

Students who wish to become physical education instructors must begin course work in professional activities (PE 194 and 195 Professional Activities) during the freshman year if they are to complete a baccalaureate degree program in four years. Service course work in physical education (PE 180 and 190 Physical Education) cannot be substituted for the professional activity courses.

The program outlined below, if offered by the community college, will permit transfer into professional physical education and/or teacher preparation programs offered by state system institutions, without loss of time, provided, of course, that course work is reasonably comparable to that offered on the four-year campuses. *If the community college does not offer professional activities courses* the student may enroll in a one-year preprofessional program recognizing that it may require more than an additional three years after transfer to complete the professional work required.

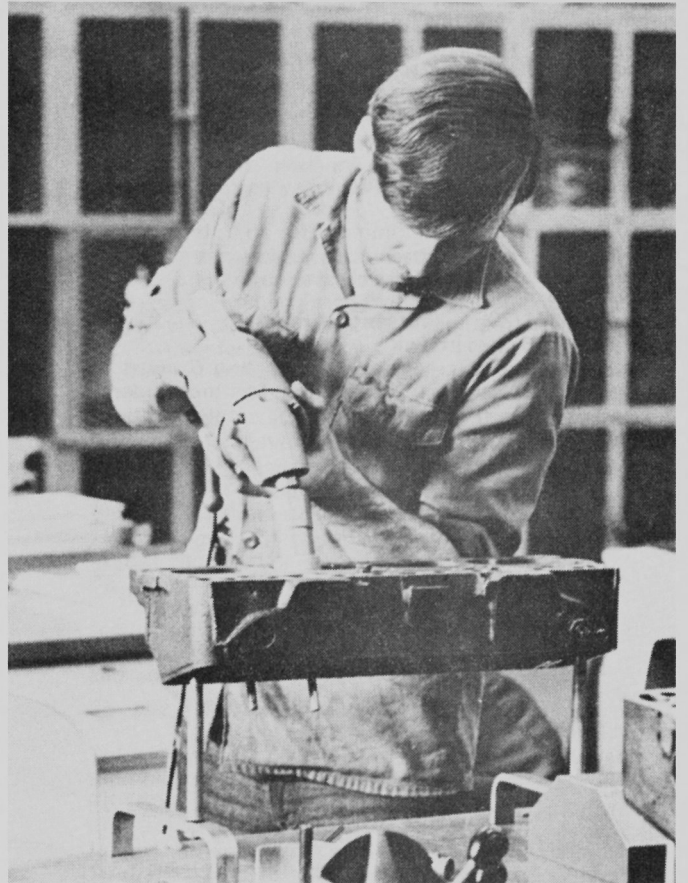
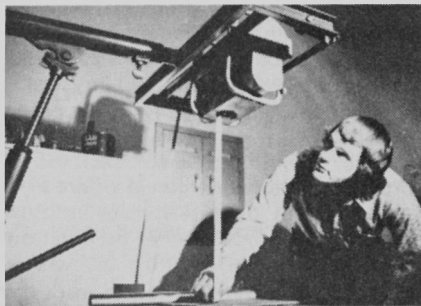
**Freshman Year**

Course No. & Title	F	W	Sp
Wr 121 or 121, 122, 123 English Composition and Electives	3	(3)	(3)
Bi 101, 102, 103 General Biology			
Z 201, 202, 203 General Zoology	3-4	3-4	3-4
PE 194/195 Professional Activities	2	2	2
PE 131 Intro. to Health, Physical Education and Recreation (PSU, UO, EOSC)	3		
Sp 111 Intro. to Speech		3	
HE 252 First Aid			3
Humanities	3	3	3
Electives	0-3	0-6	0-6
	15-17	15-17	15-17

**Sophomore Year**

Course No. & Title	F	W	Sp
Ch 101, 102, 103; 104, 105, 106; or 201, 202, 203 General Chemistry (UO, SOC, PSU)	3-5	3-5	3-5
PE 294/295 Professional Activities	2	2	2
Psy 201, 202, 203 General Psychology	3	3	(3)
Social science sequence	3	3	3
HE 250 Personal Health	3		
FN 225 Nutrition (UO, OSU, SOC)			4
Electives	0-6	3-7	0-10
	15-19	15-16	15-17

Maximum Acceptable Credit: 108 hours



# Business and Industrial 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 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.

The Business/Industrial 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 business and industrial areas.



**Director**

Philip Clark

**Faculty**

- John Alvin, Welding, Program Coordinator
- Illa Atwood, Business Skills
- Jim Baylor, Business Management
- Garland Brooks, Business Management
- William Burns, Food Services, Program Coordinator
- David Carter, Automotive Technology, Program Coord.
- Maynard Chambers, Business Management, Dept. Coord.
- Patsy Chester, Business Skills, Department Coordinator
- John Griffiths, Machine Tool Technology, Program Coord.
- Dorothy Hazel, Business Skills
- Eugene Hysmith, Auto Body Repair
- Dorothy Lawrence, Business Skills
- Ward Ledbetter, Business Management
- L. Carl Love, Metallurgy, Program Coordinator
- James Moran, Data Processing, Program Coordinator
- Joyce Moreira, Business Skills
- Edward Movius, Business Management/Liaison
- Keith Pond, Automotive Technology
- Stephen Shelton, Data Processing
- Elwyn Stewart, Welding
- David Stringer, Business Management
- Larry Thornton, Auto Body Repair, Program Coordinator
- Al Walczak, Business Skills

**Special Programs**

13. A short program in Supervisory Training leading to a Supervisory Certificate;
14. Courses offered through the joint effort of the College and the American Institute of Banking designed as a program specifically for bank employees;
15. Courses to fit the personal or vocational needs of part-time students in the day or evening programs;
16. 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.

# BUSINESS PROGRAMS

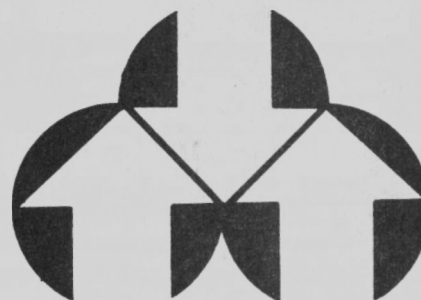
The Business area offers the following types of courses and programs to meet a variety of student needs:

**Two-Year Programs**

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

**One-Year Programs**

8. A one-year program in General Business leading to a Certificate of Completion;
9. A one-year program in Secretarial Services leading to a Certificate of Completion;
10. A one-year program in 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;



# 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 Coordinator of the Business Management Department.

**FRESHMAN YEAR**

Course No.	Course Title	Sm	F	W	Sp	
2.500	Bus. Orientaton & Career Awareness	1				
1.101-2	Communication Skills I, II	3	3			
2.530-2	Practical Accounting I, II, III	3	3	3		
2.501	Typewriting I or Proficiency	2				
2.515	Busines Math	3				
2.131	Marketing	3				
2.521	Office Machines	3				
2.119	Business Management	3				
HE250	Health	3				
2.551	Business Correspondence				3	
2.751	Professional Development				3	
2.748	or Professional Development				3	
BA 101	Elective or Intro. to Business				4	
PE180/190	Physical Education		1	1	1	
		16 16 17				

Course No.	Course Title	Sm	F	W	Sp	
2.500	Bus. Orientation & Career Awareness	1				
1.101-2	Communication Skills I, II,	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	Professional Development					
2.748	or Professional Development	3				
2.521	Office Machines				3	
2.119	Business Management				3	
2.551	Business Correspondence				3	
2.509	Intro. to Data Processing				4	
2.415	Psy. for Supervisors				3	
2.518	Business Law				3	
	Electives				3	
		18 18 16				

**SOPHOMORE YEAR**

Course No.	Course Title	Sm	F	W	Sp
2.631-3	Organ. Work Experience/				
2.710-2	On-the-Job Training (Mgt)		1 - 16*		

In addition, all Sophomore Business Management students must take the following courses:

2.510	Intro. to Data Processing	4			
2.651	Business Report Writing			3	
2.415	Psychology for Supervisors	3			
2.518	Business Law			3	
2.110	Principles of Salesmanship			3	
2.585	Management Decision Simulation				3
2.121	Applied Economics	3			
2.516	Intro. to Business Statistics				3

In addition, students must complete enough credits from the following list to make up the 90 credit graduation requirement.

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			
2.575	Systems and Procedures	3			
2.220	Personal Finance	3			

\*Must complete in Sophomore year, a minimum of 12 credits. Contact Division prior to quarter for permission to enter.



**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 of Science Degree.

**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 Compelction. 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	
1.101-2	Communication Skills I, II	3			3	
2.501-3	Typing I, II, III	2	2	2		
2.541-3	Stenography I, II, III	3	3	3		
2.515	Business Math	3				
2.500	Bus. Orientation & Career Awareness	1				
2.751	Professional Development					
2.748	or Professional Development	3				
2.652	Filing	1				
2.551	Business Correspondence				3	
2.521	Office Machines				3	
2.530-1	Practical Accounting				3 3	
2.526	Duplicating Equipment				1	
2.527	Transcribing Machines				2	
2.528	Clerical Office Procedure				3	
		16 15 16				

**SOPHOMORE YEAR**

Course No.	Course Title	Sm	F	W	Sp
2.613-5	Organ. Work Experience/				
2.631-3	On-the-Job Training		1 - 16		
2.545-7	Applied Stenography I, II, III	3	3	3	
2.415	Psychology for Supervisors				3
2.510	Introduction to Data Processing	4			
HE250	Health				3
PE180/190	Physical Education		1	1	1
2.504	Typing IV				2
2.507	Executive Typewriter				1

In addition, students must complete enough credits from the following list to make up the 90 credit graduation requirement.

		Credit
2.518	Business Law	3
2.121	Applied Economics	3
2.522	Advanced Office Machines	3
2.532	Practical Accounting III	3
2.220	Personal Finance	3
2.505	Typing V	2
2.651	Business Report Writing	3

## SECRETARIAL SERVICES

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

Course No.	Course Title	Sm	F	W	Sp
1.101-2	Communication Skills I, II		3		3
2.501-3	Typing I, II, III		2	2	2
2.541-3	Stenography I, II, III		3	3	3
2.515	Business Math		3		
2.500	Bus. Orientation & Career Awareness		1		
2.751	Professional Development		3		
2.748	or Professional Development		3		
2.652	Filing		1		
2.551	Business Correspondence			3	
2.521	Office Machines			3	
2.530-1	Practical Accounting I, II			3	3
2.526	Duplicating Equipment			1	
2.527	Transcribing Machines				2
2.528	Clerical Office Procedures				3
					16 15 16

## CLERICAL SERVICES

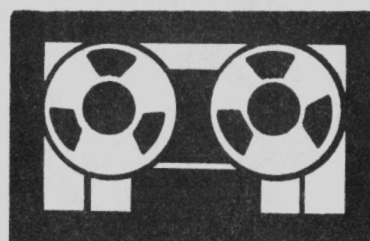
This one-year curriculum is designed to provide students with experience and training necessary for clerical positions. These courses may also serve to prepare the student for civil service examinations. After completing this program and filing an application with the Office of the Registrar, the student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

Course No.	Course Title	Sm	F	W	Sp
1.101	Communication Skills I		3		
1.102	Communication Skills II			3	
2.530-1	Practical Accounting I, II		3	3	
2.515	Business Math		3		
2.521	Office Machines			3	
2.501-3	Typing I, II, III		2	2	2
2.551	Business Correspondence			3	
2.528	Clerical Office Procedures				3
2.652	Filing		1		
2.526	Duplicating Equipment			1	

Course No.	Course Title	Sm	F	W	Sp
2.527	Transcribing Machines				2
2.510	Intro. to Data Processing				4
2.500	Bus. Orientation & Career Awareness	1			
2.751	Professional Development		3		
2.748	or Professional Development Electives				4
					16 15 15

Electives: Contact Department Coordinator for more Information

		Credits
2.528	Personal Shorthand	3
2.522	Advanced Office Machines	3
2.504	Typing IV	2
2.505	Typing V	2
2.532	Practical Accounting III	3
2.518	Business Law	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	Communication Skills I, II			3	3
Wr121-2	or English Composition			3	3
2.121	Applied Economics				3
2.518	Business Law				3
2.530-2	Practical Accounting I, II, III			3	3
BA211-3	or Principles of Accounting I, II, III		3	3	3
HE250	Health				3
PE180/190	Physical Education		1	1	1
					17 16 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
2.415	Psychology for Supervisors		3		
	General Education Electives		6	3	
			15	15	14

**SOPHOMORE YEAR**

Course No.	Course Title	Sp	F	W	Sp
2.631-3	Organ. Work Experience				
2.710-2	or On-the-Job Training (Mgt)				1 - 16*
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
In addition, students must complete enough credits from the following list to make up the 90 credit graduation requirement.					

		Credits
2.131	Elements of Marketing	3
2.110	Elements of Salesmanship	3
2.134	Retail Merchandising	3
2.551	Business Correspondence	3
BA101	Introduction to Business	4
2.575	Systems and Procedures	3
2.558	Intro. to Programming	3
2.220	Personal Finance	3



**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 Coordinator of the Business Management Department.

**FRESHMAN YEAR**

Course No.	Course Title	Sm	F	W	Sp
2.500	Bus. Orientation & Career Awareness		1		
1.101-2	Communication Skills I, II,		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
HE250	Health		3		
2.518	Business Law				3
2.751	Professional Development				3
2.748	or Professional Development				3
2.516	Intro. to Business Statistics				3
PE180/190	Physical Education Electives		1	1	1
			3		
			19	16	17



**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 of Science Degree. These programs are described below. Some credit may be allowed for supervision experience.

**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	
9.504	Developing Employees through Trgn. Elective (1 course from List A) Elective(1 course from Lists A or B)				3

**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	
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 of 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	
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)

\*Prior to taking any of these courses, contact Counseling.

**Elective Courses**

1. General Education courses (12 cr.) from List B.
2. General Electives (27 cr.) from Lists A or B.
3. Credit for supervisory experience can be submitted for up to 24 credits of general electives. See Department Coordinator for this information.
4. Up to 16 credits may be obtained for O.J.T. classes. See Department Coordinator 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

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

**Business Transfer**

**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. Sm/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 122 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.

**BA232 Intro. to Business Statistics**  
4 class hrs/wk 4 cr. Sp

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, and statistical inference.

**SS111 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. Students will be given the opportunity to advance at their own rate.

**SS112 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. Students will be given the opportunity to advance at their own rate.

**SS113 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. Students will be given the opportunity to advance at their own rate.

**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.

**General Business**

**2.500 Business Orientation & Career Awareness**  
2 class hrs/wk 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.

**Secretarial Skills**

**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 V-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**  
2 class hrs/wk 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.

**2.521 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, mark-up, depreciation, and interest. The student is allowed to advance at his own rate.

**2.526 Duplicating Equipment**  
2 class hrs/wk 1 cr. Sm/F/W/Sp

This course will provide the student with a general background and specific instruction in a variety of duplicating processes.

**2.527 Transcribing Machines**  
2 class hrs/wk 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.

**2.528 Clerical Office Procedures**  
6 class hrs/wk 3 cr. Sm/W/Sp

Includes instruction in telephone techniques and job interviewing. The students will be employed in a simulated office in the classroom integrating all office skills and techniques. Prerequisite: 2.502, Typing II.

**2.529 Medical Transcription**  
4 class hrs/wk 2 cr. Sm/F/W/Sp

This course is designed to acquaint the student with medical terminology and to prepare the student for a beginning position as a medical secretary or a medical transcriptionist. Prerequisite: Typing II.

**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 Stenoscrypt, 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.

**2.551 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.

**2.590 Readings & Conferences for Secretarial Skills**  
2-10 lab hrs/wk 1-5 cr. On Demand

Subject areas of particular interest to the student or areas where the student needs some additional work can be covered in this course. The number of credits will be determined by the amount of time to be spent.

**2.650 Records Mgt. for Educational Secretaries**  
3 class hrs/wk 3 cr.

This course is designed to assist educational secretaries in the creation, storage and disposal of business and school records, through the use of alphabetic, numeric and subject systems. A variety of storage and retrieval methods are explored.

**2.651 Business Report Writing**  
3 class hrs/wk 3 cr. W

This course is designed to provide the business student with experience in preparing minutes of meeting, inter-office reports, and formal business reports. Prerequisite: 1.101 Communication Skills I or equivalent.

**2.652 Filing**  
2 class hrs/wk 1 cr. Sm/F/W/Sp

This course provides the basic principles and information that aim toward efficient performance in managing and using records in the office.

**2.613-5 On-the-Job Training (Secretarial)**  
16-24 hrs/wk 1-16 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.

**Business Management/Accounting**

- 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.
- 2.220 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.
- 2.111 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.



**2.121 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.

**2.415 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.

**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 Professional Development**  
 or  
**2.748**  
 3 class hrs/wk 3 cr. Sm/F/W/Sp

A course for people who want to be employed. The course includes goal setting, self-motivations, self-evaluation, personal care, social and business manners, discrimination in business, resume preparation, job search techniques, and interview techniques.

**2.710-2 On-the-Job Training (Business Mgt.)**  
 16-24 hrs/wk 1-16 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. 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. F/W/Sp

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 Keypunch 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.



## FOOD SERVICES

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.

Course No.	Course Title
8.300	Food Microbiology I
8.303	Introduction to Professional Cooking
8.304	Professional Cooking
8.305	Professional Cooking II
8.306	Professional Cooking III
8.308	Food Purchasing and Storage
8.309	Menu and Food Preparation
8.311	A Cook's French: French Culinary Vocabulary

Students interested in any of these classes should see the Coordinator of the Food Service Program.

**8.300 Food Microbiology I**  
4 class hrs/wk 3 cr.  
Types of food poisoning; transmission of food-borne diseases; sanitation measures for discouraging optimum condition for growth of microorganisms; storage conditions for certain foods as related to metal toxicity.

**8.303 Intro. to Professional Cooking**  
23 class hrs/wk 9 cr.  
Basic food preparation using open flame, electrical heat, and wet (steam) heat. Also included are: culinary communications; safety and first aid; basic identification of cooking tools and their practical use; tasting of herbs; spices, and their uses; sanitation and hygiene; history of the industry. Students are expected to schedule, with the instructor, twenty-one (21) hours per week of work experience in the College Cafeteria.

**8.304 Professional Cooking I**  
23 class hrs/wk 9 cr.

A second course in food preparation with further emphasis on cooking, using electrical heat, and wet heat, with specific instruction in sauteing, pan frying and deep frying. This course will also include: meat identification; poultry and game identification; cheese identification and uses; basic fish and seafood cleaning and cooking; refrigeration of food products; herbs and seasonings. Includes twenty-one (21) class hours of work experience to be scheduled with the instructor.

**8.305 Professional Cooking II**  
23 class hrs/wk 9 cr.

A course in pie and pastry production; sweet dough and quick bread production; smoked food preparation; as well as instruction and practice for setting up and serving a buffet. Includes twenty-one (21) class hours of work experience to be scheduled with the instructor.

**8.306 Professional Cooking III**  
6 class hrs/wk 4 cr.

An advance course in food preparation using the open fire, electrical heat and wet heat with emphasis on detail in meat cookery, garnishing presentation, stocks and sauces, exotic foods or gourmet cookery, recipe reading and writing and hand tool and power machine mastery.

**8.308 Food Purchasing and Storage**  
6 class hrs/wk 4 cr.

The overall responsibilities of purchasing, storeroom control, inventories, and standards of quality.

**8.309 Menu and Food Preparation**  
6 class hrs/wk 4 cr.

This course will incorporate complete menu and meal design and preparation. Menu balance and preparation of any and all food items previously practiced in the food service course will be employed. Special projects will be assigned to evaluate student food preparation and menu planning skills.

**8.311 A Cook's French: French Culinary Vocab.**  
3 class hrs/wk 3 cr.

In this course students will become familiar with French cooking terms, including those used in the preparation and serving of French cuisine. They will learn what constitutes famous French dishes and how to pronounce them; they will learn the names of basic French raw foods. Names of those who prepare and serve food will also be taught.

## INDUSTRIAL PROGRAMS

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

### Two-Year Programs

1. A two-year program in Auto Mechanics leading to an Associate of Science degree;
2. A two-year program in Machine Tool Technology leading to an Associate of Science degree;
3. A two-year program in Metallurgical Technology leading to an Associate of Science degree;
4. A two-year program in Auto Body Repair leading to an Associate of Science degree;
5. A two-year program in Welding leading to an Associate of Science degree;
6. A two-year program in Auto Mechanics leading to a Certificate of Completion.

### One-Year Programs

7. A one-year program in Auto Body Repair leading to a Certificate of Completion;
8. A one-year program in Welding leading to a Certificate of Completion.

### Special Programs

9. Courses to fit the personal or vocational needs of part-time students in the day or evening programs in any of the Industrial programs:
  - A. Radiator and Air Conditioning Specialist
  - B. Brakes Specialist
  - C. Tune-Up Technician
  - D. Transmission Technician
  - E. Engineer Machine Shop Specialist
  - F. Metals Testing Technician

## 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

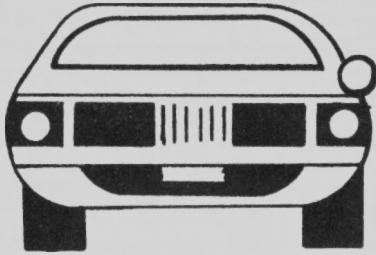
A survey of the principles of safety in industry including safety codes, personnel considerations and safety practices relating to machine design, materials handling and safe equipment operation and maintenance. An attempt is made to decrease the number of accidents along with an emphasis towards reducing 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 classwork 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.



# 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, re-conditioning and refinishing. Experience is gained on estimating repair costs of components related to this industry.

Both a Certificate and Associate of Science program are available. Students seeking an Associate of 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	
PE180/190	Physical Education		1	1	1
PE252	First Aid				3

### Suggested Electives

3.308	Fund. of Auto Electricity		3		
4.108	Industrial Safety				2
4.200	Math I			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	
2.121	Applied Economics	3			
1.101	Communication Skills I	3			
1.102	Communication Skills II		3		
HE250	Personal Health			3	
		18	18	16	

### Suggested Electives

2.110	Principles of Salesmanship				3
2.515	Business Mathematics	3			
2.651	Business Report Writing		3		

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, locking 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 points 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 trunk lids. Forming curvature of metal, repairing holes in panels, sectioning and welding torn and damaged areas. Filing, grinding, solder and plastic filling, sanding, priming, and painting. 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 of Science Degree will be awarded to those who successfully complete the two year program.

### Freshman Year (1st Option – Summer Entry)

Course No.	Course Title	Sm	F	W	Sp
3.305	Automotive Fundamentals	6			
3.334	Internal Combustion Engines			8	
3.335	Auto Electricity		8		
3.360	Auto Machine Shop			4	
3.364	Fuels and Carburetion		4		
3.370	Auto Brakes	4			
4.100	Blueprint Reading & Sketch.			2	
4.151	Welding I	3			
4.200	Math I	4			
4.202	Math II		4		
4.300	Physics				4
PE190	Physical Education	1	1	1	
1.101	Communication Skills				
1.135	Developmental Reading		3		
4.130	Machine Processes				3
		21		20 19	

### Sophomore Year

Course No.	Course Title	Sm	F	W	Sp
3.278	Transmission I				4
3.280	Transmission II	6			
3.290	Chassis I				4
3.292	Chassis II	4			
3.329	Auto Repair Practices I				4
3.324	Tune Up and Diagnosis I				4
3.331	Auto Repair Practices II	4			
3.333	Auto Repair Practices III		4		
3.375	Heat Exchange & Air Controls		6		
4.152	Welding II				3
3.340	Advanced Tune Up and Diagnosis	4			
2.651	Business Report Writing		3		
HE252	Health (or First Aid)		3		
2.415	Psychology for Supervisors			3	
		21		16 19	

### Freshman Year (2nd Option – Fall Entry)

Course No.	Course Title	Sm	F	W	Sp
3.305	Automotive Fundamentals	6			
3.334	Internal Combustion Engines			8	
3.335	Auto Electricity		8		
3.360	Auto Machine Shop			4	
3.364	Fuels and Carburetion		4		
3.370	Auto Brakes				4
4.100	Blueprint Reading & Sketch.		2		
4.151	Welding I		3		
4.200	Math I		4		
4.202	Math II			4	
4.300	Physics				4
PE190	Physical Education	1	1	1	
1.101	Communication Skills				
1.135	Developmental Reading		3		
4.130	Machine Process				3
		19		20 21	

### Sophomore Year

Course No.	Course Title	Sm	F	W	Sp
3.278	Transmission I		4		
3.280	Transmission II			6	
3.290	Chassis I		4		
3.292	Chassis II			4	
3.329	Auto Repair Practices I		4		
3.324	Tune Up and Diagnosis I		4		
3.331	Auto Repair Practices II			4	
3.333	Auto Repair Practices III				4
3.375	Heat Exchange & Air Controls				6
4.152	Welding II		3		
3.340	Advanced Tune Up and Diagnosis			4	
2.651	Business Report Writing				3
HE252	Health (or First Aid)		3		
2.415	Psychology for Supervisors				3
		22		18 16	

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

**3.278 Transmissions I**  
 6 class hrs/wk 4 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**  
 9 class hrs/wk 6 cr. Sm/W  
 A study of the operating principles and repair-procedures of automatic transmissions, torque converters. 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 4 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 4 cr. Sm/W  
 Fundamental principles of automotive suspension systems are studied, with emphasis upon front end alignment, wheel balancing, steering systems and frames.

**3.324 Tune-Up and Diagnosis**  
 6 class hrs/wk 4 cr. W/Sp  
 A problem-solving course of the lecture-demonstration-lab-performance type in which the student works on a live engine. He will call on his learning and skills acquired in previous courses to solve various engine malfunctions and then to bring that engine to optimum operating efficiency.

**3.340 Advanced Tune-Up and Diagnosis**  
 6 class hrs/wk 4 cr.  
 Advanced instruction to further the students' knowledge and skills in engine tune-up. Emphasis will be placed on the use of the oscilloscope, dynamometer, and emission control test equipment. The student will receive training in diagnosis and repair of emission control devices, carburation and electrical units that pertain to engine tune-up.

**3.329 Automotive Repair Practices I**  
 8 class hrs/wk 4 cr. Sm/W  
 A laboratory course in which the student can develop additional abilities and understanding through diagnosis and repair of the complete automobile and the related 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**  
 8 class hrs/wk 4 cr. F/Sp  
 A continuation of Automotive Repair Practices I.

**3.333 Automotive Repair Practices III**  
 8 class hrs/wk 4 cr. F/Sp  
 A continuation of Automotive Repair Practices II.

**3.305 Automotive Fundamentals**  
 9 class hrs/wk 6 cr. Sm/F  
 This course is designed to develop the student's skills and knowledge in the use of hand tools, fasteners, precision measuring instruments, tubings and fittings, and safety practices as they pertain to the automotive industry. This course also offers the student the general conceptual knowledge in the internal combustion engine and its parts nomenclature. Methods of power transmissions and other mechanical devices, as they pertain to the automobile.

**3.334 Internal Combustion Engines**  
 12 class hrs/wk 8 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 8 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.

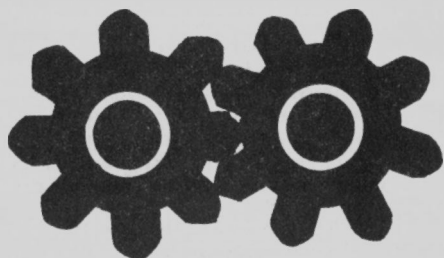
**3.350 Selling Principles and Techniques**  
 5 class hrs/wk 3 cr. W/Sp  
 A course primarily concerning the attitudes and philosophy of automotive employees who must frequently meet and deal with the public. Particular attention is given to the attributes of successful service station operation which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

**3.360 Automotive Machine Shop**  
 6 class hrs/wk 4 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**  
 6 class hrs/wk 4 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 4 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**  
 9 class hrs/wk 6 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.



# MACHINE TOOL 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	Optional				
		Sm	F	W	Sp	
3.403-5	Machine Tools I, II, III	10	10	10	10	
4.100	Blueprint Reading & Sketching		2			
4.202,4	Mathematics			4	4	
PE190	Physical Education			1	1	
4.151	Welding I			3		
HE252	First Aid			3		
		10	18	15	15	

## Sophomore Year

Course No.	Course Title	Optional				
		Sm	F	W	Sp	
3.406-8	Machine Tools IV, V, VI	10	10	10	10	
6.293	Intro. to Metallurgy		4			
2.651	Business Report Writing				3	
1.102	Communication Skills				3	
PE190	Physical Education			1		
4.152	Welding II			3		
	Social Science/Humanities Electives*			3	3	
		10	17	17	16	

\*(as required to meet catalog requirements for graduation)

### 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

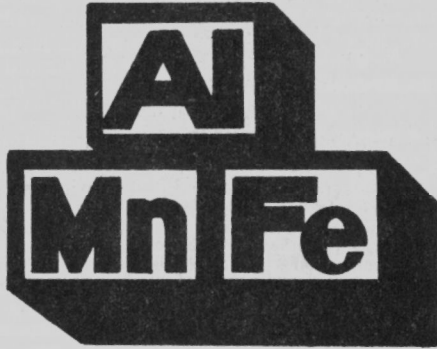
A lecture and lab course that provides advanced training to students generally familiar with the five basic machining arts. Students will review and up-date previously acquired skills. Special emphasis is placed on increasing the depth of knowledge of milling machines and grinder operation. Concentrated 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.

**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.



# 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 of Science Degree. Certificates will be offered to students who satisfactorily complete specific courses in metals testing.

Freshman Year		Sm	F	W	Sp
Course No.	Course Title				
6.293	Intro. to Metallurgy		4		
6.276	Physical Metallurgy			4	
6.294	Process Metallurgy				4
4.151	Welding I				3
3.444	Welding Metallurgy				4
9.634	Drafting & Blueprint I	2			
4.205-6	Basic Chemistry I, II		4	4	
1.110	Elements of Algebra		4		
Mth100	Inter. Algebra			4	
4.300-2	Practical Physics		4	4	
PE190	Physical Education		1	1	1
		15		17 16	

**Sophomore Year**

Course No.	Course Title	Sm	F	W	Sp
1.101	Communication Skills I		3		
9.502	Written Communication for Supervisors				3
2.751	Professional Development				3
2.748	Professional Development				3
3.462	Industrial Electricity		3		
4.108	Industrial Safety				2
4.120	Fund. of Specification				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
HE250	Personal Health				3
	Technical Electives				3 3
		16		16 16	

**Suggested Electives**

2.415	Psychology for Supervisors
2.121	Applied Economics
4.122	Strength of Materials
3.162	Photography
6.276	Vacuum Technology

**4.161-3 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.

**6.288 Vacuum Technology**  
3 class hrs/wk 3 cr. **On Demand**

The course will encompass several phases of vacuum technology starting with basic terminology and to progress through industrial applications and equipment selection. To include specifics such as what happens in a vacuum, need for a vacuum and vacuum chambers requirements. Maintenance of equipment will be stressed to help provide the students with a working knowledge of a vacuum industry.

**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 or consent of Instructor.

**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**

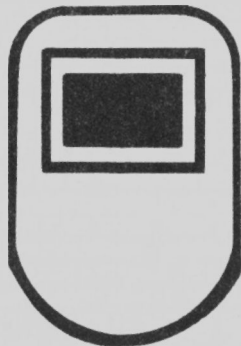
Metallurgical principles are studied including raw materials requirements for metals processing, furnaces and refractories, furnace fuels and combustion, heat flow energy balances and alloy systems. Prerequisite: Basic Chemistry or consent of Instructor.

**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. **Sm**

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. A one-year Certificate of Completion will be issued upon fulfillment of the program requirement.

A two-year Associate of Science degree will be awarded to those individuals who complete the first year and second year curriculums. The welding curriculum is intended to be optional, thus allowing an individual to terminate at the end of one year or exercising the two year options.

The second year is designed to give more experience in specific areas such as layout, fabrication, repair and other related subjects.

**Freshman Year**  
**(One Year Certificate Program)**

Course No.	Course Title	Sm	F	W	Sp
3.444	Welding Metallurgy				4
4.100	Blueprint Reading & Sketching		2		
4.108	Industrial Safety				2
4.200, 4.202	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
					<hr/>
					16 17 16

**Suggested Elective**

4.153	Welding Seminar				3
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**Sophomore Year**

Course No.	Course Title	Sm	F	W	Sp
PE190	Physical Education		1	1	1
HE252	First Aid		3		
4.101	Drafting & Blueprint I		2		
3.400	Basic Machine Tool Practices		2		
4.255	Fabrication & Repair Practices I		6		
1.101	Communication Skills I				3
3.445	Welding Metallurgy II				4
3.462	Industrial Electricity				3
4.256	Fabrication Repair & Practice II				6
2.651	Business Report Writing				3
9.500	Elements of Supervision				3
3.295	Hydraulics & Pneumatics				3
4.257	Fabrication & Repair Practices III				6
					<hr/>
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**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.

**4.255-7 Fabrication & Repair Practices I, II, III**  
 15 class hrs/wk 6 cr.

A lecture and laboratory series of courses that provides advanced information and skills related to welding repair and fabrication. Instructor evaluated group or individual projects undertaken will provide a variety of experiences. These projects will require knowledge gained from related classes as outlined in the curriculum. Blueprint reading, cost estimation, ordering and inventory of materials, layout skills, fabrication and final assembly are skills that will be taught or utilized.

**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.

**TRANSFER CURRICULA**

The curricula outlined below are intended to help students determine which transfer courses they should take at LBCC based on the four-year degree program being considered and the four-year college to which the courses will be transferred. Before students enroll for any transfer courses they intend to apply towards a bachelors degree they should talk with a counselor.

**Business Administration (UO, OSU, PSU, SOC) and Business and Economics (EOSC)**

The program outlined below, if successfully completed, will permit a student to transfer into any of the major programs in business administration offered by institutions of the Oregon State System of Higher Education, or the program in business and economics at EOSC, at the junior level. Students may complete requirements

for the baccalaureate degree with two additional years of work at the four-year institutions.

**Freshman Year**

	F	W	Sp
Wr 121 or 121, 122 123 English Comp.	3	(3)	(3)
BA 101 Introduction to Business	4		
Sp 111 Fundamentals of Speech		3	
Mathematics*	4	4	4
Science sequence (OSU)*	3-4	3-4	3-4
Humanities <sup>3</sup> (UO, PSU, SOC, EOSC)			
Physical Education*	1	1	
Personal Health			3
Electives	3-4	3-6	3-6
	15-17	15-17	16-17

**Sophomore Year**

Ec 201, 202, 203 Prin. of Economics*	3	3	3
BA 211, 212, 213 Prin. of Accounting*	3	3	3
BA 226, Bus. Law (UO, PSU, OSU, EOSC)			3
BA 232, Intro. to Bus. Statistics		3	
Mth 233, Intro. to Num. Computation*	4		
Social Science*	3	3	3
WR 122, English Comp. or Elective		3	
Physical Education*	1	1	1
Electives*	2-3		3
	16-17	16	16

Maximum Acceptable Credit: 108 hours

\*Prior to taking any of these courses, contact Counseling.

**Business Education (OSU, PSU, SOC, EOSC) Distributive Education (OSU)**

The programs outlined below are recommended for students who plan to transfer to a major program in Business Education at Oregon State University, Portland State University, Southern Oregon College, and Eastern Oregon State College or to a program in Distributive Education at Oregon State University.

**Oregon State University  
 Southern Oregon College  
 Eastern Oregon State College**

**Freshman Year**

Course	F	W	Sp
BA101 Intro. to Business (OSU, SOC)	4		
Wr 121 (OSU), Wr 121, 122 (SOC), Wr 121, 211, 123 (EOSC)			
English Composition	3	(3)	(3)
Date Processing (if available) (OSU)*			3
Speech (SOC, EOSC)			
Mathematics*	4	4	4
Physical Education*	1	1	1
SS 111, 112, 113 Stenography*	3	3	3
SS 121, 122, 123 Typewriting*	2	2	2
Humanities sequence (EOSC)			
Natural Science or social science electives (OSU, SOC)	0-3	3-7	0-4
	16-17	16-17	16-17

**Sophomore Year**

Ec 201, 202, 203 Principles of Economics*	3	3	3
BA 211, 212, 213 Prin. of Accounting*	3	3	3
SS 211, 212, 213 Applied Sten.*	3	3	3
Psy 201, 202 Gen. Psychology	3	3	
Personal Health			3
BA214 Business Comm. (SOC)			
BA226 Business Law (OSU)			
BA232 Intro. to Business Statistics (OSU, SOC)	3	(3)	3
Hst 201, 202, 203 History of the United States or			
PS 201, 202, 203 American Government (EOSC)			
Electives		0-3	0-3
	15	15	16-18

Maximum Acceptable Credit: 108 hours

\*Prior to taking any of these courses, contact Counseling.

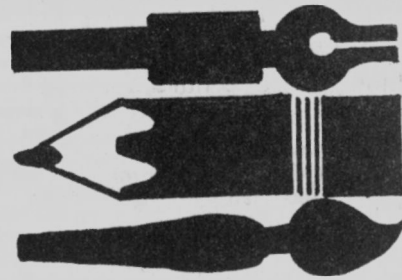
The Humanities and Social Services Division embraces a wide variety of academic subjects typically classified as the liberal arts. These include both the humanities (art, English, music, drama, speech, philosophy, and religion) and the social sciences (anthropology, economics, geography, history, political science, psychology and sociology.) In addition to the broader subject-matter fields, the division offers specific occupational preparation in criminal justice, graphic communications, and human services.

The objectives of the Humanities and Social Services Division are to offer complete lower division preparation in the liberal arts for 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, aesthetic development, and social sensitivity.



# Humanities and Social Services Division





## ART

The art 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 works. The department 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.

### Director

Kenneth Cheney

### Faculty

Regina Andreason, Social Science  
 Martha Ayers, Speech-Drama  
 James Barnes, Social Science, Department Coordinator  
 Arthur Bervin, English  
 J. W. Brick, Art  
 Shirley Call, English  
 Thomas Chase, English  
 Douglas Clark, Social Science  
 Russell Durham, Social Science  
 Richard Hankey, Criminal Justice, Program Coordinator  
 Max Lieberman, Social Science  
 Donald Minnick, English  
 Maribel Montgomery, Social Science  
 Jean Schreiber, Human Services, Program Coordinator  
 Clinton Tobey, Art, Department Coordinator  
 Richard West, Music  
 Barbarajene Williams, English  
 Dwain Wright, Graphic Communications, Program Coor.

The Humanities and Social Services Division offers the following types of courses and programs to meet a variety of student needs.

### Two-Year Programs

A two-year program leading to an Associate of Arts Degree which is fully transferable to a four-year institution may be earned in the following areas: Fine Art, Criminal Justice, Elementary Education, English, Music, Philosophy and Religion, Secondary Education, Social Science, and Speech and Drama.

A two-year program leading to an Associate of Science Degree may be earned in the following areas: Graphic Communication, and Law Enforcement.

### One-Year Programs

A one-year program leading to a certificate may be earned in Human Services (Child Care).

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

Introduction to techniques of construction with fiber through experiences in weaving, macrame, stitchery. Emphasis placed on design considerations. \$5.00 lab fee.

**Art 102 Weaving II**  
 2 lec/4 lab 3 cr. F/W/Sp

Further study of techniques of fiber construction with studio practice in weaving on multiple harness table and floor looms. Study of fibers, pattern, design considerations. Prerequisite: Art 101 \$5.00 lab fee.

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

A course of art appreciation designed to provide the student with a basis for qualitative discrimination among works of architecture, the crafts and industrial design, photography and the motion picture, illustration and printmaking, and easel and mural painting. (201) Architecture, sculpture, crafts, industrial design; (202) Photography and motion pictures; (203) Illustration, printmaking, and easel and mural painting.

**Art 204, 205, 206 Intro. to Art History**  
 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. (204) Art origins; (205) Christian era to Industrialization; (206) Modern. \*See note below:

\*Art 204, 205, and 206 is a redesignation for what was formerly taught at LBCC as Art 201, 202, and 203. Students who have taken Art 201, 202, or 203 at LBCC prior to the fall of 1974 should not enroll in Art 204,

205 or 206. In this case, students may, at their option, petition the Registrar to change their previous credits in Art 201, 202, or 203 to reflect the new designation of Art 204, 205, or 206. They may then elect to enroll in the new Survey of Visual Art sequence.

**Art 235 Jewelry and Metalsmithing I**  
2 lec/4 lab 3 cr. Sm/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. \$5.00 lab fee.

**Art 236 Jewelry and Metalsmithing II**  
2 lec/4 lab 3 cr. Sm/F/W/Sp

Continued work in the design and creation of jewelry and other metal fabrication. Prerequisite: Art 235. \$5.00 lab fee.

**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. \$3.00 lab fee.

**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 specialty construction; glazing and firing techniques. Prerequisite: Art 255 or consent of instructor. \$3 lab fee.

**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 290 or consent of instructor. \$5.00 model fee.

**Art 282 Intermediate Drawing**  
2 lec/4 lab 3 cr. W

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

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

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

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 293 Elementary Sculpture**  
2 lec/4 lab 3 cr. F/W/Sp

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 296 Painting II**  
2 lec/4 lab 3 cr. F/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.



## **CRIMINAL JUSTICE**

### **Criminal Justice Administration**

The Criminal Justice Administration 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. Two-year programs leading to either an Associate of Science or an Associate of Arts degree are available.

### **Associate of Science Degree Program**

A two-track curriculum exists for students seeking the Associate of Science degree. Students may achieve an emphasis in either Law Enforcement (including police and deputy sheriff), or Corrections, (including probation, parole and correctional personnel). See requirements listed below.

### **Associate of Arts Program**

Increasingly, criminal justice agencies are requiring a four-year degree at the entry level. Although many four-year colleges will allow some transfer of occupational courses, students may more conveniently transfer an Associate of Arts degree throughout the state educational system. A suggested curriculum guide for transfer students is located on page 66.

**ASSOCIATE OF SCIENCE DEGREE REQUIREMENTS**

All candidates must complete the following basic core:

Basic Core		
Course No.	Course Title	Credits
CJA 111	Introduction to Criminal Justice	3
CJA 112	Introduction to Criminal Justice	3
CJA 113	Introduction to Criminal Justice	3
CJA 211	Criminal Law I	3
CJA 213	Legal Aspects of Evidence	3
CJA 219	Community Relations	3
		18

All candidates must also complete *one* of the following criminal justice options.

**Law Enforcement**

Course No.	Course Title	Credits
CJA 212	Criminal Law II	3
CJA 214	Criminal Investigation	3
5.220	Concepts of Enforcement Agencies	3
5.230	Fundamentals of Crime & Delinquency	3
5.232	Intro to Juvenile Delinquency	3
		15

**Corrections**

Course No.	Course Title	Credits
5.225	Introduction to Corrections	3
5.229	Interviewing and Counseling	3
5.231	Civil Procedures	3
5.233	Institutions and Agencies	3
5.230	Fundamentals of Crime & Delinquency	3
		15

In addition to the basic core and criminal justice option, all candidates must complete the following general education requirements and meet conditions listed for the Associate of Science degree.

**General Education**

	Credits
Wr 121 & Wr 122 (preferred) or Com. Skills I and Com. Skills II	6
P.E. Activity	3
HE 252 First Aid	3
3 credits from Science and Math	3
3 credits from Humanities and Social Science	3
Additional electives to bring total credits to 90	39
57	

**Supervised Field Experience**

Students may, upon the recommendation of the program coordinator, receive transfer or non-transfer college credit by participating in Supervised Field Experience (SFE). Further information may be found in the Cooperative Work Experience section of this catalog.

**ASSOCIATE OF SCIENCE DEGREE CURRICULUM GUIDE**

**Law Enforcement**

**Freshman Year**

Course No.	Course Title	Sm	F	W	Sp
CJA 111	Intro. to Criminal Justice		3		
5.230	Fundamentals of Crime & Delinquency		3		
	Wr 121 or Com. Sk. I		3		
	P.E. Activity		1		
	Math or Science Elective		3		
	Elective or SFE		3		
CJA 112	Intro to Criminal Justice			3	
CJA 211	Criminal Law I			3	
	Wr 122 or Com. Sk. II Composition			3	
	P.E. Activity			1	
	Humanities or Social Science Elective			3	
	Elective or SFE			3	
CJA 113	Intro to Criminal Justice				3
CJA 212	Criminal Law II				3
HE 252	First Aid				3
	P.E. Activity				1
	Elective or SFE				3
					16 16 13

**Sophomore Year**

Course No.	Course Title	Sm	F	W	Sp
CJA 219	Community Relations		3		
5.220	Concepts of Enforcement Services		3		
	Electives or SFE		9		
CJA 214	Criminal Investigation				3
CJA 213	Legal Aspects of Evidence				3
	Electives or SFE				9
5.236	Juvenile Law and Procedures				3
	Electives or SFE				12
					15 15 15

**Corrections**

**Freshman Year**

Course No.	Course Title	Sm	F	W	Sp
CJA 111	Intro to Criminal Justice		3		
5.231	Civil Procedures		3		
	Wr 121 or Com. Sk. I Composition		3		
	P.E. Activity		1		
	Math or Science Elective		3		
	Elective or SFE		3		
CJA 112	Intro to Criminal Justice				3
CJA 211	Criminal Law I				3
	Wr 122 or Com. Sk. II				3
	P.E. Activity				1
	Humanities or Social Science Elective				3
	Elective or SFE				3
CJA 113	Intro to Criminal Justice				3
5.225	Intro to Corrections				3
HE 252	First Aid				3
	P.E. Activity				1
	Elective or SFE				3
					16 16 13

**Sophomore Year**

Course No.	Course Title	Sm	F	W	Sp
5.230	Fundamentals of Crime & Delinquency		3		
CJA 219	Community Relations		3		
	Electives or SFE		9		
5.233	Institutions and Agencies				3
CJA 213	Legal Aspects of Evidence				3
	Electives or SFE				9
5.229	Interviewing and Counseling				3
	Electives or SFE				12
					15 15 15

**CJA 111-3 Introduction to Criminal Justice**

**Administration**

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.

CJA 113 not open to students who completed CJS 211 prior to September 1974.

**CJA 211 Concepts of Criminal Law I**

3 class hrs/wk 3 cr.

W

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: CJA 111 or consent of instructor. Not open to students who completed CJS 212 prior to September 1974.

**CJA 212 Introduction to Criminal Law II**

3 class hrs/wk 3 cr.

Sp

Developmental history in English common law and U.S. case law, constitutional and statutory provisions relating to arrest, search, and seizure. Rights and responsibilities of citizens and criminal justice personnel and agencies.

Prerequisite: CJA 111 or consent of instructor. Not open to students who completed CJS 5.220 prior to September 1974.

**CJA 213 Legal Aspects of Evidence**

3 class hrs/wk 3 cr.

F/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: CJA 111 or consent of instructor.

**CJA 214 Introduction to Criminal Investigation**  
3 class hrs/wk 3 cr. W

Fundamentals of criminal investigation, theory and history; crime scene to courtroom with emphasis on techniques appropriate to specific crimes.

Prerequisite: CJA 111 or consent of instructor.

**CJA 219 Community Relations**  
3 class hrs/wk 3 cr. F

An in-depth exploration of the roles of the Administration of Justice practitioners and their agencies. Inter-relationships and role expectations among the various agencies and the public. Principal emphasis will be placed upon the professional image of the system of Justice Administration and the development of positive relationships between members of the system and the public.

Prerequisite: CJA 111 or consent of instructor.

**5.220 Concepts of Enforcement Services**  
3 class hrs/wk 3 cr. F

Exploration of theories, philosophies, and concepts related to the role expectations of the line enforcement officer. Emphasis is placed upon the patrol, traffic, and public service responsibilities and their relationship to the administration of justice system.

Prerequisite: CJA 111 or consent of the instructor.

**5.225 Introduction to Corrections**  
3 class hrs/wk 3 cr. Sp

An examination of the total correctional process from law enforcement through the administration of justice, probation, prisons and correctional institutions, and parole. History and philosophy, career oriented.

Prerequisite: CJA 111, or consent of instructor.

**5.229 Interviewing and Counseling**  
3 class hrs/wk 3 cr. Sp

Introduction to approaches of behavior modification through interviewing and counseling. An overview of the techniques available to entry level practitioners in corrections in counseling and interviewing. Create an awareness of advanced methods utilized by professional counselors. Traces the development of positive relationships between the client and corrections personnel.

Prerequisite: CJA 111, or consent of instructor.

**5.230 Fundamentals of Crime and Delinquency**  
3 class hrs/wk 3 cr. F

An introduction to major types of criminal behavior, role careers of offenders, factors which contribute to the production of criminality or delinquency: methods used in dealing with violators in the justice system; the changing roles of police, courts, and after-care process of sentence, probation, prisons, and parole: changes of the law in crime control and treatment processes.

Prerequisite: CJA 111 or consent of instructor.

**5.231 Civil Procedures**  
3 class hrs/wk 3 cr. F

Fundamentals of the law of contracts, torts, and personal property, including liens, landlords and tenant as they apply to the criminal justice system.

**5.233 Institutions and Agencies**  
3 class hrs/wk 3 cr. W

History, objectives, and evaluation of community, state, and federal agencies involved in the disposition of offenders and potential delinquents.

Prerequisite: CJA 111 or consent of instructor.

**5.236 Introduction 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: CJA 111 or consent of instructor.

**1.200/WE 201 Supervised Field Experience**  
3-16 cr. F/W/Sp

Supervised Field Experience is a course designed to give the student actual work experience which closely parallels his field of study. Further information is available in the Cooperative Work Experience section of this catalog.

**1.201 Field Experience Seminar**  
1 cr. F/W/Sp

Refer to the Cooperative Work Experience section of this catalog.



# DRAMA AND SPEECH

The speech and drama curricula is designed to provide skill-building opportunities in spoken inter- and intra-personal communication as well as performance and technical opportunities in theatre. All courses satisfy lower division college transfer requirements for those students seeking the bachelor's degree, but also offer professional instruction for those students whose interests are primarily vocational or avocational.

**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. W/Sp

Concepts and continued practical work in the processes of oral communication. Emphasis is placed upon exploring the individual's role, as a leader and as a participant, in the communication process through the use of lectures, films, TV playback, group participation and independent projects. Prerequisite: Sp 111.



**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 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 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**  
**Production Activity 1-3 cr. F/W/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.

## ENGLISH

The English curriculum is designed to provide skill-building opportunities in written communication as well as aesthetic appreciation and understanding of the various literary genres.



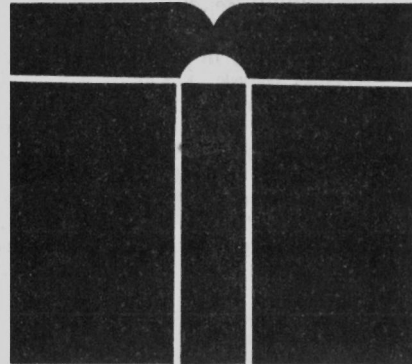
### JOURNALISM

**Jn 215 Journalism Laboratory**  
 2 class hrs/wk 1 cr. F/W/Sp  
 Work on the student publications. Given in conjunction with Jn 216, Jn 217, and Jn 218.

**Jn 216 Reporting I**  
 2 class hrs/wk 3 cr. F  
 Basics of gathering, reporting news, with emphasis on accuracy and clarity of writing. Jn 215 required in conjunction with this course except with consent of instructor.

**Jn 217 Reporting II**  
 3 class hrs/wk 3 cr. W  
 Accuracy and objectivity standards as well as reader appeal in writing. Methods of gathering and organizing material for multiple-source, multiple-fact stories. Jn 215 required in conjunction with this course except with consent of instructor. Prerequisite: Jn 216 or consent of instructor.

**Jn 218 Copy Editing and Makeup**  
 3 class hrs/wk 3 cr. Sp  
 Copy reading, head writing, proofreading and makeup. Jn 215 required in conjunction with this course except with consent of instructor. Prerequisite: Jn 216 or consent of instructor.



### LITERATURE

**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 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 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 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.

**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. 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.

**WRITING****Wr 121 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. \*See enrollment information this page.

**Wr 122 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 121.

**Wr 123 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 121.

**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. \*See enrollment information on this page.

**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: 1.101.

**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.

**CREATIVE WRITING****Wr 241 Intro. to Imaginative Writing**  
3 class hrs/wk 3 cr. F/W

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/Sp

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 or consent of instructor.

**Wr 243 Intro. to Imaginative Writing**  
3 class hrs/wk 3 cr. W/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, or consent of instructor.

**\*Enrollment information for writing students.****Placement**

Newly enrolling students at LBCC who anticipate a writing course as part of their program will be advised by counseling to register in one of the following three classes: Writing 121, for the transfer student; Communication Skills I for the vocational-occupational student; or Study Skills, for the remedial student. Advisement will be based on results of the CGP examination, the student's career goals, and other available information.

Students registering in either Writing 121 or Communication Skills I will be tested during the first week of the term to further assess the likelihood of their success in these courses. Students may be advised at the end of the first regular week of instruction that they should reregister for a writing class more suited to their particular needs, or that their success in the class for which they have registered may be dependent on additional work in the Writing Center.

Students will not be compelled to reregister for any other class against their wishes.

### Transfer Students

On the basis of the writing test and writing sample administered during the first week, Wr 121 students (Expository Theme Writing) will be advised of one of the following:

a. The score was so low that it indicates the student needs to enroll in Communication Skills I (Sentence, Paragraph, Spelling) preparatory to his attempt at unified theme writing in Wr 121. Further, the student should understand that Communication Skills I is a non-trans-course and may not be transferred to a four-year institution.

b. The score was marginally low, which indicates the student may require outside assistance in the Writing Center in order to successfully meet the objectives of Wr 121, but that under those conditions, he may expect to successfully complete Wr 121 during that term.

c. The score was average, which indicates that the student should have no difficulty meeting the requirements of Wr 121 within the context of the scheduled class.

d. The score was superior, which indicates the student should consider challenging Wr 121 for credit and enrolling in another course.

### Vocational-Occupational Students

On the basis of the writing test and writing sample administered during the first week of class, Communication Skills I students (Sentence, Paragraph, Spelling) will be advised of one of the following:

a. The score was so low that it indicates the student should seek counseling as to the advisability of enrollment in a comprehensive study skills program and defer enrollment in Communication Skills I.

b. The score was marginally low, which indicates the student may require outside assistance in the Writing Center in order to successfully meet the objectives of Communication Skills I and that more than a single term may be required to accomplish this.

c. The score was average, which indicates that the student should have no difficulty meeting the requirements of Communication Skills I within the context of the scheduled class.

d. The score was superior, which indicates the student should be granted credit by examination for Communication Skills I and enroll immediately in Communication Skills II (Business and Report Writing).

### Writing Center

The Writing Center will be open for use during a variety of convenient hours throughout the week.

Students referred to the Writing Center by their instructors will carry a diagnosis form detailing the specific writing problem requiring individual assistance. The student will present the form to the center instructor who will arrange a program to overcome the difficulty. Students will continue to attend and be responsible for the writing class in which they are enrolled.

Following the instruction in the Writing Center the student will return the diagnostic form signed by the study skills instructor indicating successful achievement, to his writing instructor. The writing instructor may require a demonstration that the problem has been overcome.

Diagnostic work in the Writing Center may be a requirement for any writing class at LBCC. Students who fail to overcome diagnosed writing difficulties will not be assigned grades for the class in which they are enrolled.



## GRAPHIC COMMUNICATIONS

Graphic Communications is a 90 hour, Associate Degree program in which students have the option of majoring either in commercial art or graphic production technology. The curriculum requires 18 hours of general education, 24-27 hours of elective credit, 21 hours of basic graphics courses, and 24-27 hours of specialized training in the graphic field of major interest.

Vocational opportunities for those majoring in graphic production technology include: photographer, stripper, darkroom technician, plate-maker, duplicating machine operator, offset press helper, silk screen printer, cameraman, bindery helper, typesetter, and electronic graphics analyst.

Vocational opportunities for those majoring in commercial art include: sign painter, show-card painter, commercial illustrator, window designer, ad layout designer, brochure designer, educational media designer and illustrator, newspaper layout and paste-up, photographer's assistant, darkroom assistant, director of photographic advertising, silk screen printer.

Candidates for the associate degree in graphic communications must complete the following courses.

**GENERAL EDUCATION COURSES**

Course No.	Course Title	Credit
1.101-2	Communication Skills I, II	6
HE250	Personal Health	3
PE180/190	PE Activities	3
Additional credits to bring total of general education to 18. A minimum of 3 hours each in any two areas of Humanities, Social Sciences, Mathematics-Sciences.		
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**ELECTIVE COURSES**

Particularly recommended are courses in the graphics area not selected for the major and courses in chemistry, math, and electronics. From 3 to 16 hours may be applied through Supervised Field Experience (SFE)

24-27

**BASIC GRAPHICS COURSES**

Course No.	Course Title	Credit
3.150	Intro. to Graphics	3
Art195	Basic Design	3
3.152	Layout Design	3
3.151	Papers for Graphics	3
3.158	Typography	3
3.162	Photography I	3
3.166	Graphic Production I	3
		21

In addition to the courses listed above, students will select one of the following graphics majors:

**COMMERCIAL ART**

Course No.	Course Title	Credit
Art291	Drawing Fundamentals	3
Art282	Intermediate Drawing	3
3.170	Art Tools	3
3.154	Display Design	3
3.172	Illustration I	3
3.173	Illustration II	3
3.174	Illustration III	3
3.180	Publications Lab	6
		27

**GRAPHIC PRODUCTION TECHNOLOGY**

Course No.	Course Title	Credit
2.501	Typing I	2
2.502	Typing II	2
2.503	Typing III	2
3.163	Photography II	3
3.164	Photography III	3
3.167	Graphic Production II	3
3.168	Graphic Production III	3
3.181	Production Lab	6
		24

**Supervised Field Experience**

Students may, upon the recommendation of the program coordinator, receive transfer or non-transfer college credit by participating in Supervised Field Experience (SFE). Further information may be found in the Cooperative Work Experience section of this catalog.

**Commercial Art**

**Freshman Year**

Course No.	Course Title	Sm	F	W	Sp
3.150	Intro. to Graphic Comm.		3		
3.151	Papers for Graphics		3		
Art195	Basic Design		3		
1.101	Comm. Skills I		3		
HE250	Health		3		
PE	Physical Education		1		
1.102	Comm. Skills II			3	
3.170	Art Tools & Their Application			3	
3.158	Typography			3	
3.162	Photography I			3	
3.166	Graphic Production I			3	
PE	Physical Education			1	
Art291	Drawing Fundamentals				3
3.154	Display Design				3
3.152	Graphic Prep. & Layout Design				3
3.180	Publications Lab				2
PE	Physical Education				1
	Electives or SFE				3
					16 16 15

**Sophomore Year**

Course No.	Course Title	Sm	F	W	Sp
Art282	Intermediate Drawing		3		
3.172	Commercial Illustration I		3		
3.180	Publications Lab		2		
	Electives or SFE		6		
3.173	Commercial Illustration II			3	
3.180	Publications Lab			2	
	Electives or SFE			9	
3.174	Commercial Illustration III				3
	Electives or SFE				13
					14 14 16

**Graphic Production Technology**

**Freshman Year**

Course No.	Course Title	Sm	F	W	Sp
3.150	Intro. to Graphic Communications		3		
3.151	Papers for Graphics		3		
Art195	Basic Design		3		
1.101	Communication Skills I		3		
HE250	Health		3		
PE	Physical Education		1		
1.102	Communication Skills II			3	
2.501	Typing I			2	
3.158	Typography			3	
3.162	Photography I			3	
3.166	Graphic Production I			3	
PE	Physical Education			1	
2.502	Typing II				2
3.163	Photography II				3
3.152	Graphic Preparation & Layout Design				3
	Elective or SFE				3
3.181	Production Lab				2
PE	Physical Education				1
					16 15 14

**Sophomore Year**

Course No.	Course Title	Sm	F	W	Sp
2.503	Typing III		2		
3.164	Photography III		3		
3.167	Graphic Production II		3		
3.181	Production Lab		2		
	Electives or SFE		6		
3.168	Graphic Production III				3
3.181	Production Lab				2
	Electives or SFE				9
9.145	Basic Electronics for Graphics or elective				3
	Other electives or SFE				13
					16 14 16

**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.

**3.151 Papers for Graphics**  
3 class hrs/wk 3 cr. F

Types and sizes of printing papers: Book, bond, text, cover, index, etc. Grains and textures relating to printing, folding, binding. Cutting to optimum size. Job estimating.

**3.152 Graphic Prep. and Layout Design**  
2 lec/4 lab 3 cr. Sp

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.

**3.154 Merchandising and Display Design**  
 2 lec/4 lab 3 cr. Sp  
 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.

**3.158 Advertising Typography**  
 2 lec/4 lab 3 cr. W  
 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.

**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. \$5 lab fee.

**3.163 Photography II**  
 2 lec/4 lab 3 cr. 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. \$5 lab fee.

**3.164 Photography III**  
 2 lec/4 lab 3 cr. F  
 Use of the process camera for color separations, 3m color key. Color processing, printing and use of dichroic color head and color analyzer. Use of the view camera. Field trips. Prerequisite: 3.162 (Photography I) or consent of instructor. \$5 lab fee.

**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.

**3.167 Graphic Production II**  
 2 lec/4 lab 3 cr. F  
 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: 3.163 (Photography II) or consent of instructor. \$5 lab fee.

**3.168 Graphic Production III**  
 2 lec/4 lab 3 cr. W  
 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. \$5 lab fee.

**3.170 Art Tools and Their Application**  
 2 lec/4 lab 3 cr. W  
 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.

**3.172 Commercial Illustration I**  
 2 lec/4 lab 3 cr. F  
 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.

**3.173 Commercial Illustration II**  
 2 lec/4 lab 3 cr. W  
 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.

**3.174 Commercial Illustration III**  
 2 lec/4 lab 3 cr. Sp  
 An advanced course in color and black and white illustration. Individual work and study is emphasized. The student may choose his area of interest. Prerequisite: Commercial Illustration II or consent of instructor.

**3.180 Publications Lab**  
 4 lab hrs/wk 2 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. Maximum of 6 credits.

**3.181 Production Lab**  
 4 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.

**9.145 Basic Electronics for Graphics**  
 3 class hrs/wk 3 cr. Sp  
 Measurement of current, voltage, and resistance in modern electronic graphic equipment with the multimeter and oscilloscope. Emphasis on reading waveforms.

**1.200/WE 201 Supervised Field Experience**  
 3-16 cr. F/W/Sp  
 Supervised Field Experience is a course designed to give the student actual work experience which closely parallels his field of study. Further information is available in the Cooperative Work Experience section of this catalog.

**1.201 Field Experience Seminar**  
 1 cr. F/W/Sp  
 Refer to the Cooperative Work Experience section of this catalog.



# HUMAN SERVICES

The Human Service Curriculum is designed to coordinate pre-professional experience and general educational opportunities for employed human service agency personnel, persons seeking employment in the human service system, and students desiring pre-professional training in human services requiring advanced degrees beyond the lower division transfer level.

The curriculum consists of a basic core of twenty-one credit hours required of all human service majors. The Human Service Certificate may be achieved upon completion of the basic core in combination with additional course work in selected content areas of human service occupational study. Forty-five credit hours of course work, lab experience, and supervised work experience are required. A minimum of eighteen hours must be earned in courses which carry college transfer credit.

The Child Development Option is designed to prepare child care personnel for employment with 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.

Each candidate for the certificate program will work closely with an advisor to ensure an appropriate selection of options with the course offerings compatible with the education plan and occupational goals of the student.

### Supervised Field Experience

Students may, upon the recommendation of the program coordinator, receive transfer or non-transfer college credit by participating in Supervised Field Experience (SFE). Further information may be found in the Cooperative Work Experience section of this catalog.

### Human Services Certificate Curriculum

		Freshman Year			
Course No.	Course Title	Sm	F	W	Sp
7.130	Human Service Systems	2			
7.140	Techniques of Obs. Behavior	1			
7.153	Behavioral Objectives	2			
Electives	(Selected from approved transfer or occupational program core)			10	
7.148	Interviewing Procedures				3
7.136	Ages and Stages: Early Child.				3
7.141	Techniques of Rcd. Behavior				1
Electives	(Selected from approved transfer or occupational program core)				8
1.200	Supervised Field Experience				7
1.201	Field Experience Seminar				1
Electives	Selected from approved transfer or occupational program core)				6
7.131	Human Service Personnel				1
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### Human Services Certificate: Child Development Option

Course No.	Course Title	Sm	F	W	Sp
7.130	Human Service Systems	2			
7.140	Techniques of Obs. Behavior	1			
7.153	Behavioral Objectives	2			
7.150	Child Care Practice I	3			
7.180	Supervised Placement I	4			
7.135	Ages and Stages: Intro.	2			
7.148	Interviewing Procedures				3
7.136	Ages and Stages: Early Child.				3
7.141	Techniques of Rcd. Behavior				1
7.151	Child Care Practice II				3
7.145	Health of Young Children				3
Electives	(Selected from approved transfer or occupational core)				3
7.131	Human Service Personnel				1
7.137	Ages and Stages: Adolescence				3
1.200	Supervised Field Experience				10
1.201	Field Experience Seminar				1
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**7.130 Human Service Systems**  
**2 class hrs/wk 2 cr. F**  
 Survey of current systems of service provision. Particular emphasis on trends applicable to Oregon. Review of historical perspective of social welfare organizations.

**7.131 Human Service Personnel**  
**1 class hr/wk 1 cr. Sp**  
 A seminar series identifying manpower trends and task description analysis. Methods used to determine human service agency personnel career opportunities.

**7.135 Ages and Stages of Human Development: Introduction**  
**2 class hrs/wk 2 cr. F**  
 Introduction to human growth and development. Emphasis on sequential growth, basic needs and environmental factors impact on infant development.

**7.136 Ages and Stages of Human Development: Early Childhood**  
**2 lec/2 lab 3 cr. W**  
 Continuation of Ages and Stages sequence. Focus attention on preschool and primary learning. Discussion of early childhood formative years.

**7.137 Ages and Stages of Human Development: Adolescence**  
**2 lec/2 lab 3 cr. Sp**  
 Continuation of Ages and Stages sequence. Focus attention on adolescent behaviors, life styles and self-determination factors.

- 7.140**            **Techniques of Observing Behavior**  
1 class hr/wk    1 cr.            **F**  
Introduction to behavioral observation techniques.
- 7.141**            **Techniques of Recording Behavior**  
1 lec/1 lab hr/wk 1 cr.            **W**  
Factual recording, use of terminology, expressing quality of interrelatedness with people and materials.
- 7.145**            **Health of Young Children**  
3 class hrs/wk    3 cr.            **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).
- 7.148**            **Interviewing Procedures**  
2 lec/2 lab hrs/wk 3 cr.            **W**  
Introduction to the role of interviewer. Practical skill training and opportunities to develop professional attitude toward interviewee-interviewer relationship.
- 7.150**            **Child Care Practice I**  
2 lec/2 lab hrs/wk 3 cr.            **F**  
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 Practice II**  
2 lec/2 lab hrs/wk 3 cr.            **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.
- 7.153**            **Behavioral Objectives**  
2 class hrs/wk    2 cr.            **F**  
Identification of behavioral goals and preparation of plan for behavioral change.
- 7.180**            **Supervised Placement**  
2 lec/4 lab hrs/wk 4 cr.            **F**  
Work ½ day per week in the campus Parent-Child Education Center under the direction of the teaching person. Assignment may include material preparation, skill training, and specific care tasks. Weekly class sessions permit common learning experience.
- 1.200/WE 201 Supervised Field Experience**  
3-16 cr.            **F/W/Sp**  
Supervised Field Experience is a course designed to give the student actual work experience which closely parallels his field of study. Further information is available in the Cooperative Work Experience section of this catalog.
- 1.201**            **Field Experience Seminar**  
1 cr.            **F/W/Sp**  
Refer to the Cooperative Work Experience section of this catalog.



## MUSIC

The music curriculum is designed to provide skill building opportunities in vocal and instrumental music and to develop aesthetic appreciation and theoretical knowledge. 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.

- 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 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 195**            **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.
- 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 211, 212, 213 Music Theory II**  
3 class hrs/wk    3 cr.            **F/W/Sp**  
Study of the disciplines of hearing, performing, analyzing, improvising, and composing different kinds of music; terminology, concepts, and the development of aural-visual acuity. (See also Mu 214, 215, 216). Must be taken in sequence.

**Mu 214, 215, 216 Keyboard Harmony**  
 1 class hr/wk 1 cr. F/W/Sp

Keyboard application of the theoretical principles studied in Mu 211, 212, 213. Exercises are figured-bass realization, modulation, transposition, score reading. *To be taken concurrently with Mu 211, 212, 213.* Prerequisite: Mu 111, 112.

**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 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 1 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

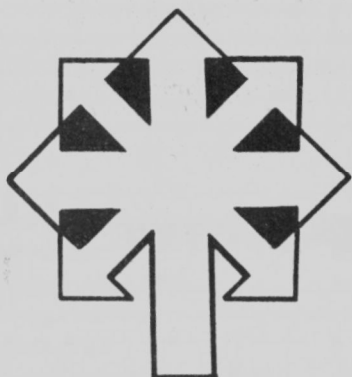
Advanced opportunities in concert choir. Prerequisite: Mu 197C.

**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.



## PHILOSOPHY AND RELIGION

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/W

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/Sp

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. F

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

**RE 201 Religions of the World**  
 3 class hrs/wk 3 cr. F

The origin, thought, and practices of the world's major religions.

**RE 202 The Old Testament & its Backgrounds**  
 3 class hrs/wk 3 cr. W

A study of the conditions that effected the production of the Old Testament. This includes a historic and cultural view of the Hebrew people.

**RE 203 The New Testament & its World**  
 3 class hrs/wk 3 cr. Sp

A study of the influences that produced the New Testament. This will include not only the religious and social content but also the literary styles.







**ECONOMICS**

**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.



**GEOGRAPHY**

**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**

**Hst 101 History of Western Civilization**  
 3 class hrs/wk 3 cr. 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. 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.

**Hst 103 History of Western Civilization**  
 3 class hrs/wk 3 cr. 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 199 Towards The Year 2000**  
 3 class hrs/wk 3 cr. F/W/Sp  
 A study of the various problems that have to be faced by our society, and the psychological adjustment to the solutions or control of these problems.

**Hst 201 History of the United States**  
 3 class hrs/wk 3 cr. F/W  
 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/Sp  
 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. F/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.



**POLITICAL SCIENCE**

- Ps 201 American Government**  
 3 class hrs/wk 3 cr. F/W  
 A study of the principles of American constitutional system, political process, and organization of national government.
- Ps 202 American Government**  
 3 class hrs/wk 3 cr. W/Sp  
 A study of the powers and functions of national government.
- Ps 203 American Government**  
 3 class hrs/wk 3 cr. F/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.



**PSYCHOLOGY AND EDUCATION**

- 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  
 The first quarter of General Psychology provides an introduction to the scientific procedures employed in the study of behavior and mental activity. Man is viewed first in the perspective of a biological organism sharing many features in common with other animals. Then the unique human growth and development patterns are traced and man's advanced perceptual processes and basic capacity for learning are studied.

**Psy 202 General Psychology**  
 3 class hrs/wk 3 cr. W/Sp  
 The second quarter of General Psychology expands upon the adaptive capacities of man through a further study of learning language and thought. Consideration is also given to the basic processes of motivation and emotion and their effect on behavior. The principles of behavior genetics are introduced in preparation for the study of individual differences.

**Psy 203 General Psychology**  
 3 class hrs/wk 3 cr. Sp  
 The third quarter of General Psychology begins with a consideration of individual differences and the special testing techniques devised to describe them. A variety of personality theories are then examined and compared. The problems of conflict, adjustment and mental health are discussed along with the various kinds of therapy employed to help the disorganized person. Finally, a review is made of the patterns of social behavior that arise from man's participation in groups.

**Psy 205 Applied Psychology**  
 3 lec. 3 cr. Sp  
 Application of psychological facts and principles in such fields as education, industry, business, psychotherapy, and community relations.  
 Prerequisite: Psy 201 and Psy 202.

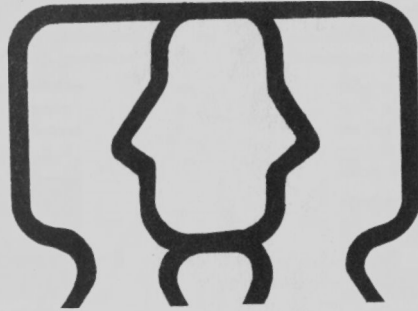
**Psy 231 Human Sexuality**  
 3 class hrs/wk 3 cr. F/W/Sp  
 Physiology, terminology and varieties of human sexual response. Emphasis will be placed upon the in-cultural and cross-cultural breadth of normal sexual expression. The kinds and treatment of sexual dysfunction, anomalous development and behavior will be considered. Prerequisite: One quarter of either Psy 201, 202, 203, or Soc 204, 205, 206; or consent of instructor.

**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.

**Ed 207 Seminar**  
 1-3 class hrs/wk 1-3 cr. F/W/Sp  
 Introduction to the field of education. Not applicable toward meeting major requirements in the field of education.

**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. Visitation of local schools. Must be taken concurrently with Mth 122, 123.

**Ed 210 Theory and Practicum II A (Field Experience)**  
 15 lab hrs/wk 6 cr. F/W/Sp  
 A field based program to provide students in teacher education experience in working with pupils in public elementary and secondary schools on problems related to reading, careers, the affective and cognitive development of children and youth (learning), in understanding the school as a social system, cultural diversity, behavior modification and change, and the use of educational media.



**SOCIOLOGY**

**Soc 199 Intro to Women's Studies**  
3 class hrs/wk 3 cr. F/W/Sp

An examination of the research and theories in the area of sex-role ascription from the sociological perspective and the social stereotypes to which both men and women are expected to conform. The diversified roles and status of women in the community, their involvement in education, politics, business, economics, religion and the family are examined.

**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.

**FL 222 Marriage Preparation**  
3 class hrs/wk 3 cr. F

Study of the nature of courtship and marriage; role expectations and responsibilities. Additional goals of the course are toward more self-understanding and 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.

**FL 223 Family Living**  
3 class hrs/wk 3 cr. W

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.

**FL240 Contemporary American Families**  
3 class hrs/wk 3 cr. Sp

The student will study the family as an influence in the socialization and general development of individuals. Contemporary family practices, styles and issues as developmental factors will be discussed, and new ways of approaching family roles will be explored.

**1.124 American Institutions**  
3 class hrs/wk 3 cr. F

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.

**TRANSFER CURRICULA**

The curricula outlined below are intended to help students determine which transfer courses they should take at LBCC based on the four-year degree program being considered and the four-year college to which the courses will be transferred. Before students enroll for any transfer courses they intend to apply towards a bachelor's degree they should talk with a counselor.

**CRIMINAL JUSTICE**

**Freshman Year**

Course No.	Course Title	F	W	Sp
CJA 111-3	Introduction to Criminal Justice	3	3	3
Wr 121-122	English Composition	3	3	
Soc 204-6	General Sociology	3	3	3
HE 252				
or 250	First Aid or Personal Health	3		
SP 111	Oral Communication		3	
SP 112 or 113	Oral Communication			3
	P.E. Activity	1	1	
	Electives	3	3	6
		<hr/>	<hr/>	<hr/>
		16	16	15

**Sophomore Year**

Course No.	Course Title	F	W	Sp
CJA 211	Criminal Law I	3		
CJA 212	Criminal Law II		3	
CJA 213	Legal Aspects of Evidence			3
CJA 214	Criminal Investigation	3		
Psy 201-3	General Psychology	3	3	3
	Mathematics or Science			
	sequence	4	4	4
	P.E. Activity	1	1	
Psy 111	Personality & Development			3
	or elective			3
	Humanities sequence	3	3	3
		<hr/>	<hr/>	<hr/>
		17	14	16

**EDUCATION MAJORS**

Accomplishment of the following curriculum guide will satisfy all LBCC requirements for an Associate of Arts degree. Moreover, it will transfer fully and conveniently into four-year college of education programs throughout the state.

**Elementary Education**

**Freshman Year**

Course No.	Course Title	Sm	F	W	Sp
Wr 121, 122, 123			3	3	3
Sp111			3		
Hst 101-3 or Hst 201-3*			3	3	3
Eng 104-6 or Eng 101-3					
or Eng 107-9 or Eng 201-3			3	3	3
or Eng 253-5					
PE Activity**			1	1	1
Geog 105 and either Geog 106 or 107					3
Bi 101-3			4	4	4
			<hr/>	<hr/>	<hr/>
			17	17	17

**Sophomore Year**

Course No.	Course Title	Sm	F	W	Sp
HE 250					3
GS 104-5			4	4	3
Soc 204, 205, 206			3	3	3
Psy 201, 202 203***			3	3	(3)
PE Activity **			(1)	(1)	(1)
Mth 121, 122, 123			3	3	3
Art 201, 202, 203 or Art 204, 205, 206			3	3	3
			<hr/>	<hr/>	<hr/>
			17	17	16

\*OCE prefers Hst 101, 102, 103  
OSU prefers Hst 201, 202, 203

\*\*OCE requires special activity groupings. Refer to OCE catalog.  
OSU requires only 3 hours of PE activity.  
U of O requires only 5 hours of PE activity.

\*\*\*Psy 203 will transfer as elective credit only at OCE.

Secondary Education

Freshman Year

Course No.	Course Title	F	W	Sp
Wr 121, 122, 123		3	3	3
Sp III		3		
HE 250			3	
P.E. Activity*		1	1	1
Bi 101, 102, 103		4	4	4
Eng 104, 105, 106, or Eng 101, 102, 103 or Eng 107, 108, 109, or Eng 201, 202, 203, or Eng 253, 254, 255		3	3	3
Electives from major/minor area***		3	3	6
		17	17	17

Sophomore Year

Course No.	Course Title	F	W	Sp
Soc 204, 205, 206		3	3	3
Hst 101, 102, 103, or Hst 201, 202, 203**		3	3	3
P.E. Activity		(1)	(1)	(1)
Psy 201, 202, 203		3	3	3
Electives from major/minor area***		6	6	6
		16	16	16

\*OCE requires special activities groupings. Refer to OCE catalog.  
 OSU requires only 3 hours of P.E. activity.  
 U of O requires only 5 hours of P.E. activity.

\*\*OCE prefers Hst 101, 102, 103  
 OSU prefers Hst 201, 202, 203

- \*\*\*Art  
 Business  
 Humanities  
     Speech/Drama  
     English  
 Physical Education  
 Music  
 Natural Sciences-Mathematics  
     Biological Science  
     Physical Science-General Science-Chemistry  
     Mathematics  
 Social Sciences

FINE ARTS MAJOR

Accomplishment of the following curriculum guide will satisfy all LBCC requirements for an Associate of Arts degree. Moreover, it will transfer fully and conveniently into four-year liberal arts colleges throughout the state.

Freshman Year

Course No.	Course Title	Sm	F	W	Sp
PE Activity			1	1	1
HE 250			3		
Wr 121			3		
Bi 101, 102, 103, or Ch 104, 105, 106 or GS 104, 105, 106			4	4	4
Eng 104, 105, 106, or Eng 101, 102, 103 or Eng 107, 108, 109, or Eng 201, 202, 203, or Eng 253, 254, 255			3	3	3
Art 204, 205, 206			3	3	3
Art 195			3		
Art 291				3	
Art 282				3	
Art 281				3	
			17	17	17

Sophomore Year

Course No.	Course Title	Sm	F	W	Sp
Soc 204, 205, 206, or Psy 201, 202, 203			3	3	3
Hst 101, 102, 103, or Hst 201, 202, 203			3	3	3
Wr 122 or 123			3		
Electives*			6	9	9
*Painting	Sculpture		15	15	15
Water Color	Ceramics-Pottery				
Design	Jewelry Making				

HUMANITIES MAJOR

Accomplishment of the following curriculum guide will satisfy all LBCC requirements for an Associate of Arts degree. Moreover, it will transfer fully and conveniently into four-year liberal arts colleges throughout the state.

Freshman Year

Course No.	Course Title	Sm	F	W	Sp
PE Activity			1	1	1
Wr 121, 122, 123			3	3	3
HE 250			3		
Bi 101, 102, 103, or Ch 104, 105, 106 or GS 104, 105, 106			4	4	4
Electives*			9	6	9
			17	17	17

Sophomore Year

Course No.	Course Title	Sm	F	W	Sp
Soc 204, 205, 206 or Psy 201, 202, 203			3	3	3
Hst 101, 102, 103, or Hst 201, 202, 203			3	3	3
Electives*			9	9	9
* Eng 101, 102, 103			15	15	15
Eng 107, 108, 109					
Eng 201, 202, 203					
Eng 253, 254, 255					
Eng 199					
Ph 201, 202, 203, 204					
Sp 111, 112, 113, 229, 248, 249, 250					
Wr 241, 242, 243					
Re 201, 202, 203					

MUSIC MAJOR

Accomplishment of the following curriculum guide will satisfy all LBCC requirements for an Associate of Arts degree. Moreover, it will transfer fully and conveniently into four-year liberal arts colleges throughout the state.

Freshman Year

Course No.	Course Title	Sm	F	W	Sp
PE Activity			1	1	1
Wr 121 and either Wr 122 or 123			3	3	
Eng 104, 105, 106, or Eng 101, 102, 103 or Eng 107, 108, 109, or Eng 201, 202, 203, or Eng 253, 254, 255			3	3	3
Mu 201, 202, 203			3	3	3
Mu 111, 112, 113			4	4	4
HE250					3
Choir or Band			1	1	1
Performance Studies			1	1	1
			16	16	16

Sophomore Year

Course No.	Course Title	Sm	F	W	Sp
Bi 101, 102, 103, or Ch 104, 105, 106, or GS 104, 105, 106			4	4	4
Soc 204, 205, 206, or Psy 201, 202, 203			3	3	3
Hst 101, 102, 103, or Hst 201, 202, 203			3	3	3
Mu 211, 212, 213			3	3	3
Mu 214, 215, 216			1	1	1
Choir or Band			1	1	1
Performance Studies			1	1	1
			16	16	16

SOCIAL SCIENCE MAJOR

Accomplishment of the following curriculum guide will satisfy all LBCC requirements for an Associate of Arts degree. Moreover, it will transfer fully and conveniently into four-year liberal arts colleges throughout the state.

Freshman Year

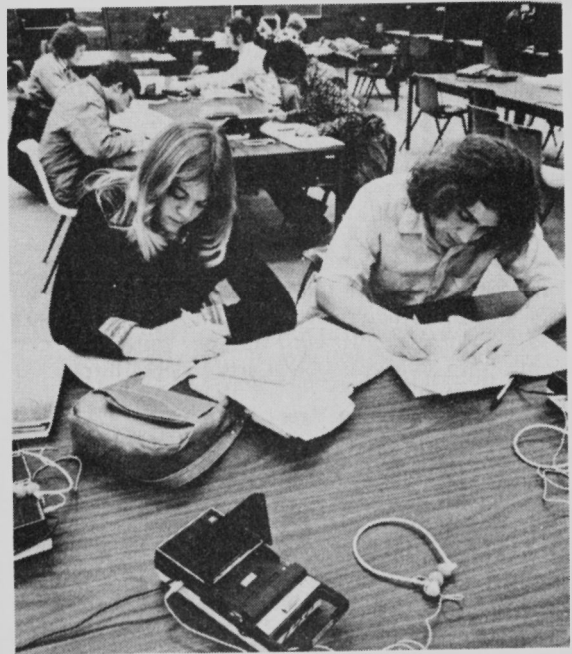
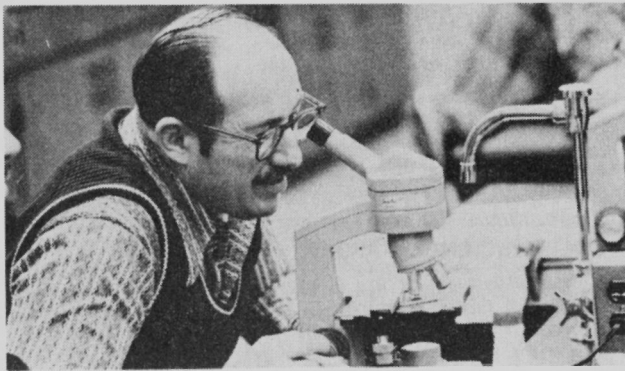
Course No.	Course Title	Sm	F	W	Sp
PE Activity			1	1	1
HE205					3
Wr 121, Wr 122, or Wr 123			3	3	
Bi 101, 102, 103, or Ch 104, 105, 106 or GS 104, 105, 106			4	4	4
Eng 104, 105, 106, or Eng 101, 102, 103 or Eng 107, 108, 109 or Eng 201, 202, 203 or Eng 253, 254, 255			3	3	3
Electives*			6	6	6
			17	17	17

Sophomore Year

Course No.	Course Title	Sm	F	W	Sp
Soc 204, 205, 206			3	3	3
Mth 161, 162, 163			4	4	4
Electives*			9	9	9
* Hst 101, 102, 103	Geog 105, 106, 107		16	16	16
Hst 201, 202, 203	Ps 201, 202, 203, 205				
Hst 199	FI 222, 223, 240				
Anth 101, 102, 103	Psy 201, 202, 203				
Anth 201, 202, 203	Soc 199				
Econ 201, 202, 203					

# Science and Technology Division

The Science and Technology Division provides students with science-related curricula enhancing their career development. The Division meets the need of both the vocational student and the student who is pursuing a professional career in science and science-related fields. Pre-employment programs are offered in agriculture, drafting, environmental science, and fire science. The programs in mathematics, physical science, and biological science serve the general education needs of the college as a whole. The Division provides the technical background for students majoring in forestry, engineering, medicine, and similar transfer programs. The entire Division is involved in community development by providing the community with educational opportunities outside the traditional educational setting. Continuous upgrading for personnel presently employed within the district is provided through in-service training, workshops, and evening classes to meet these special needs.





## AGRICULTURE BUSINESS

### Director:

Peter Scott

### Faculty:

Everett Arasmith, Wastewater Technology  
 James Baker, Biology  
 John Carnegie, Wastewater Tech. Program Coordinator  
 James Felton, Wastewater Technology  
 Hal Johnson, Agriculture, Program Coordinator  
 John Kraft, Chemistry  
 David Miller, Drafting  
 Michael Morgan, Mathematics, Program Coordinator  
 Raymond Perkins, Physical Science, Program Coordinator  
 Steve Rasmussen, Physical Science  
 Wallace Reed, Mathematics  
 James Reynolds, Drafting, Program Coordinator  
 Robert Ross, Biology, Program Coordinator  
 Dell Swearingen, Mathematics  
 John Wooley, Wastewater Technology  
 Edward Wright, Mathematics

### Two Year Associate of Science Degree Programs

Agriculture Business Technology  
 Drafting Technology  
 Wastewater Technology  
 Fire Science

### One Year Programs

Fertilizer & Chemicals Certificate  
 Turf & Forage Seed Program  
 Turf Management Certificate  
 Wastewater Treatment Plant Operation  
 leading to a Certificate of Completion.

### Special Programs

The Science and Technology Division has two special programs that meet specific statewide needs. These programs are funded by Federal and State funds. Statewide Sewage Treatment Plant Operators Up-Grading is designed to upgrade the knowledge and skills of sewage treatment plant operators. The MDTA program trains people who have been referred through the State Employment Office to become sewage treatment operators. Both programs have specific requirements. Therefore, inquiries should be forwarded to the Science and Technology Division Director.

Training for lab technician positions is also available through the Science and Technology Division. Students may choose the courses which will be applicable to the type of technician position they would like to hold, thus enabling them to set up their own program. Inquiries about this program should be directed to the Director of the division.

The Agricultural Business Technology 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 student's choice and related business subjects will enable the student to qualify for positions in the Animal Science Industry, 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:

**Animal Science:** Livestock Supplies Fieldman; Artificial Breeding Technician; Herdsman; Farm Manager; Feed Mixing Technician.

**Turf Management:** Landscape Maintenance Service; Equipment and Supply Salesman; Golf Course Superintendent; Grounds Foreman; and Landscape Construction.

**Fertilizer and Chemicals:** Agriculture Chemical Fieldman; Fieldman Food Processor; Custom Applicator and Sales Representative.

**Turf and Forage Seed:** Seed Fieldman, Seed Inspector; Warehouse Manager; Seed Salesman, and Seed Cleaner.

Students enrolling in the program may choose a one-year certificate program or the two-year curriculum leading to an Associate of Science Degree.

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 Associate Degree program. Those interested should refer to the appropriate section of the catalog under Cooperative Work Experience and consult with the Agriculture Department.

**Feed & Animal Science Program**

**Freshman Year**

Course No.	Course Title	Sm	F	W	Sp
1.200-1	Work Experience & Seminar Business Electives				10
4.202	Math II		4		
4.205-6	Basic Chemistry		4	4	
8.100	Survey of Agriculture		1		
8.125-6	Soils I, II		3	3	
8.143	Anatomy & Physiology of Farm Animals			3	
8.144	Animal Science & Nutrition			4	
8.145	Feeds and Feeding				3
8.150	Animal Genetics & Selection				4
8.150	Intro. to Animal Science		4		
8.151	Horsemanship & Horse Husbandry			3	
PE190	Physical Education		1	1	1
			17	18	18

**Sophomore Year**

Course No.	Course Title	Sm	F	W	Sp
1.101-2	Communication Skills I, II		3	3	
1.200-1	Work Experience & Seminar	10			
8.130	Ag. Chemicals			4	
8.152-3	Livestock Production I, II		4	4	
8.158	Artificial Insemination		3		
8.165	Plant Science		4		
8.170	Farm Management			3	
AECIII	Ag. Econ.			3	
HE252	First Aid			3	
			10	17	17

**Fertilizer and Chemicals Program**

**Freshman Year  
(Certificate Program)**

Course No.	Course Title	Sm	F	W	Sp
1.101-2	Communication Skills I, II		3	3	
1.200-1	Work Experience & Sem. or Electives				12
1.606	Intro. to Psy. & Human Rel.			3	
4.202	Math II		4		
8.100	Survey of Agriculture		1		
8.125-7	Soils I, II, III		3	3	3
8.130	Agriculture Chemicals			4	
8.165	Plant Science		4		
8.188	Ag Equipment Maintenance			3	
PE190	Physical Education		1	1	
			16	17	15

**Sophomore Year**

The two-year program leading to an Associate Degree of 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
4.205-6	Basic Chemistry		4	4	
8.131	Pest Control		3		
8.138	Irrigation & Drainage		3		
AECIII	Ag Econ.			3	
1.200-1	Work Experience & Sem.	12			
PE190	Physical Education		1		
HE252	First Aid			3	
	Agriculture Electives			3	
	Business Electives		6	6	
			12	17	19

**Turf and Forage Seed Program**

**Freshman Year  
(Certificate Program)**

Course No.	Course Title	Sm	F	W	Sp
1.101-2	Communication Skills I, II		3	3	
1.200-1	Work Experience & Sem. or Electives				12
4.202	Math II		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	Ag Chemicals			4	
8.165	Plant Science		4		
8.180	Warehouse Management				1
8.188	Ag Equipment Maintenance			3	
PE190	Physical Education		1	1	
			16	17	16

**Sophomore Year**

The two-year program leading to an Associate Degree of 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
1.606	Intro. to Psy. & Hum. Relations		3		
1.200-1	Work Experience & Sem.	12			
4.205-6	Basic Chemistry I, II		4	4	
AECIII	Ag Econ.			3	
PE190	Physical Education		1		
HE252	First Aid		3		
	Agriculture Electives		3	3	
	Business Electives		4	6	
			12	18	16

**Turf Management Program**

**Freshman Year  
(Certificate Program)**

Course No.	Course Title	Sm	F	W	Sp
1.606	Intro. to Psy. & Hum. Rel.			3	
1.200-1	Work Experience & Sem.				12
4.202	Math II		4		
8.100	Survey of Agriculture		1		
8.125-6	Soils I, II		3	3	
8.130	Ag Chemicals			4	
8.135-6	Turf Management I, II		3	3	
8.140	Landscape Maintenance		3		
9.165	Plant Science		4		
8.188	Ag Equipment Maintenance			3	
PE185	Fundamentals of Golf		1		
PE190	Physical Education			1	
			19	18	12

**Sophomore Year**

The two-year program leading to an Associate Degree of 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
1.101-2	Communication Skills I, II		3	3	
1.200-1	Work Experience & Sem.	12			
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	
PE190	Physical Education		1		
HE252	First Aid			3	
	Business Electives		4	6	
			12	18	18



**8.100 Survey of Agriculture**  
1 class hrs/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.

**8.143 Anatomy & Physiology of Farm Animals**  
4 class hrs/wk 3 cr. W

A lecture and laboratory course that provides students with a basic background in the physiology of farm animals. Emphasis is placed on practical information and application that will be valuable to the student interested in animal agriculture. Subject matter areas will be male and female anatomy, livestock judging, basic reproductive physiology, milk production (including physiology of lactation), artificial insemination, and an introductory look at the endocrine system.

**8.144 Animal Science & Nutrition**  
5 class hrs/wk 4 cr. W

This introductory course is designed to develop an understanding of applied animal nutrition. The course will cover proteins, carbohydrates, liquids, vitamins, minerals, and the utilization of these nutrients by livestock and poultry. In addition, the methods of determining feed value and the fundamentals of balancing rations for maximum economical production will be discussed.

**8.145 Feeds and Feeding**  
4 class hrs/wk 3 cr. Sp

This 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.

**8.150 Animal Genetics & Selection**  
6 class hrs/wk 4 cr. Sp

This course is designed to teach the student basic concepts fundamental to animal genetics. Among other areas the course covers simple Mendelian inheritance, gene structure and function, dihybrid and trihybrid crosses, utilizing heritability for production gains, and practical mating systems for the modern livestock breeder. Laboratory work will emphasize proper selection of livestock for market and breeding purposes.

**8.158 Artificial Insemination**  
3 class hrs/wk 3 cr. F

Inseminator training program with emphasis on dairy and beef cattle.

Furnish knowledge of the female reproductive organs and their general function. Training in the essentials of animal hygiene and observance of sanitation practices. Learn proper care, handling and storage of semen. Become familiar with the necessary breeding and calving records. Learn proper insemination techniques using live animals.

**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.

Evening classes in Agriculture offered through Community Education.

**9.812 Seed Cleaning**  
3 class hrs/wk 3 cr. On Demand

Designed to furnish entry and updated skills for seed cleaners. 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.

**8.151 Horsemanship & Horse Husbandry**  
4 class hrs/wk 3 cr. On Demand

A study that will cover the fundamentals of horse husbandry in horse behavior, reproduction and nutrition. There will be laboratories demonstrating basic horsemanship techniques in breaking, training, judging and foot trimming and shoeing.

**8.152 Livestock Production I**  
5 class hrs/wk 4 cr. F

This course is designed to familiarize the student with the basics of modern beef production and management. The course will cover modern breeds of cattle, mating systems, basic genetics, nutrition and reproduction, as well as proper management practices.

**8.153 Livestock Production II**  
5 class hrs/wk 4 cr. W

This course provides the student with the fundamentals of modern sheep and swine production. The course will cover modern breeds of sheep and swine, mating

systems, basic genetics, nutrition and reproduction, as well as proper management practices.

**8.158 Artificial Insemination**  
3 class hrs/wk 3 cr. On Demand

Inseminator training program with emphasis on dairy and beef cattle.

Furnish knowledge of the female reproductive organs and their general function. Train in the essentials of animal hygiene and observance of sanitation practices. Learn proper care, handling and storage of semen. Become familiar with the necessary breeding and calving records. Learn proper insemination techniques using live animals.

**8.160 Intro. to Animal Science**  
7 class hrs/wk 4 cr. On Demand

A course to introduce and familiarize the student with the various phases of the modern livestock industry. Instruction will be presented in the scientific disciplines of animal science as well as the development of skill in selecting livestock and improved production practices.

**8.170 Farm Management**  
3 class hrs/wk 3 cr. W

A course designed to encompass the selection, organization, and operation of the modern farm. Emphasis will be placed on the basic economic and agricultural principles upon which the farm business is organized and operated. Laboratory periods will provide time for observing and practicing farm operations and management.

**AEC111 Ag Econ**  
3 class hrs/wk 3 cr. On Demand

An introduction to the application of economics to agriculture. The course will include production economics, marketing, agriculture policy and a discussion of agri-business.



## BIOLOGICAL SCIENCES

**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.

**4.222-4 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.

**Bi 101, 102, 103 General Biology**  
5 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.

**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.

**Z 201 General Zoology**  
5 class hrs/wk 3 cr. F

Introduction to animal physiology: The study of animal systems, with emphasis on control and behavioral manifestations.

**Z 202 General Zoology**  
5 class hrs/wk 3 cr. W

Introduction to animal development and genetics.

**Z 203 General Zoology**  
5 class hrs/wk 3 cr. Sp

Survey of the animal kingdom.

**8.300 Food Micro I**  
4 class hrs/wk 3 cr. F

Types of food poisoning; transmission of food-borne diseases; sanitation measures for discouraging optimum condition for growth of microorganisms; storage conditions for certain foods as related to metal toxicity. Prerequisite: None.

**8.301 Food Micro II**  
4 class hrs/wk 3 cr. F

Importance of microbial control in food production and food storage. Food examination methodology. Advanced techniques utilized in food microbiology. Theory of sterilization. Prerequisite: Food Micro I.

**MB 130 Introductory Microbiology**  
4 class hrs/wk 3 cr. F

An introductory view of the field of microbiology. All forms of microbial life will be studied with emphasis on how micro-organisms are involved in every day. Medical, industrial, food, water, and sanitation aspects will be reviewed.

**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.

**FN 225 Nutrition**  
4 class hrs/wk 3 cr. Sp

The relationship of food and its components to health with emphasis on the young adult. Current national and international concerns considered.



# 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 specialties as architectural, mechanical, product design, technical illustration, electronics, and civil drafting.

All entering Drafting Technology students planning to complete the program within a two year period are advised, as minimal requirements to have a ninth grade reading level and Tech Math I entry level math skills as indicated by the comparative guidance and placement test scores.

Students interested in Cooperative Work Experience should refer to the appropriate section of the catalog and consult with the Drafting department.

### Freshman Year

Course No.	Course Title	Sm	F	W	Sp
1.101-2	Communication Skills I, II		3	3	
3.494	Construction Meth. & Materials				2
4.109	Technical Sketching	1			
4.110-2	Drafting Lab	3	3	3	
4.148	Practical Descrip. Geometry				2
4.300-2	Practical Physics			4	4
6.551-3	Tech Math I, II, III		4	4	4
4.102	Drafting Practices	3			
PE190	Physical Education	1	1	1	

**Sophomore Year**

Course No.	Course Title	Sm	F	W	Sp
1.112	Technical Report Writing		3		
2.589	D.P. Reading & Conf.			2	
3.490	Applied Mechanics			3	
3.498	Product Design			2	
4.103	Civil Drafting			3	
4.113	Surveying		2		
4.114	Architectural Drafting		3		
4.115	Presentation Drawing				2
4.116	Architectural Planning			3	
4.119	Machine Drafting		4		
4.121	Electronics Drafting			2	
4.123	Technical Illustration				3
4.125	Project Drafting				3
4.126	Mech. Design Principles		2		
4.143	Prototype & Model Construction				2
HE250	Personal Health Elective				3
			14	15	16

**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 & Materials**  
3 class hrs./wk 2 cr. W

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 and for aesthetic human appreciation.

**4.100 Blueprint Reading & 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.

**4.101 Blueprint Reading for Welders**  
4 class hrs./wk 2 cr. F

A beginning course in the fundamentals of drawing interpretation as applied in the welding trade. The course content will include such topics as basic views, dimensions, specifications, symbols, sections, assembly drawings, and technical sketching.

**4.103 Civil Drafting**  
7 class hrs./wk 3 cr. W

An introductory course in drafting room problems related to various areas of civil engineering.

**4.109 Technical Sketching**  
3 class 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 Lab**  
6 class hrs./wk 3 cr. F

**4.111 Drafting Lab**  
6 class hrs./wk 3 cr. W

**4.112 Drafting Lab**  
6 class hrs./wk 3 cr. Sp

An individualized course in drafting designed to provide the student with the basic skills and knowledge of drafting techniques. Students are placed within the curriculum content range at a performance level that compensates for previous drafting experiences. Course

content includes application of drafting instruments, dimensioning techniques, sketching, lettering, pictorial drawings, auxiliary views, sectioning, tolerances, fasteners, detail drawings, assembly drawings, inking, architectural drafting, technical illustration, and design.

**4.113 Surveying**  
4 class hrs./wk 2 cr. F

A basic study of surveying techniques. Fundamentals of chaining and leveling, care and use of surveying instruments, and office procedures. Practical application is provided through appropriate field work. Prerequisites: Tech Math II or equivalent.

**4.114 Architectural Drafting**  
7 class hrs./wk 3 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. Prerequisite: Drafting Lab or consent of instructor.

**4.115 Presentation Drawing**  
4 class hrs./wk 2 cr. Sp

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**  
7 class hrs./wk 3 cr. W

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

**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 Lab, Tech Math II, or consent of instructor.

**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 Lab or consent of instructor.

**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**  
3 class hrs./wk 3 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.

**4.134 Prototype & Model Construction**  
 4 class hrs./wk 2 cr. Sp  
 A course introducing students to the skills and techniques involved in the production of models and three-dimensional prototypes as used by industry.

**4.148 Practical Descriptive Geometry**  
 4 class hrs./wk 2 cr. Sp  
 A practical course in spatial graphical problems 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 points of intersection development from point-line-plane through the use of revolution and auxiliary projection. Prerequisite: Drafting Lab, Technical Math II or consent of instructor.

**4.102 Drafting Practices**  
 3 class hrs./wk 3 cr. F  
 An introductory study of industry practices for student planning a drafting career. Orientation to the drafting program and occupational information will be presented through the lectures, films, discussions, and field trips.

Evening courses in Drafting offered through the Community Education.

**0.850 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.

**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.

**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.



## FIRE SCIENCE

The Fire Science program is a part-time curriculum designed to meet the specific needs of students currently employed in fire service. Many of the courses in this curriculum are offered only in the evening and only on demand. However, courses in related areas such as communication skills, humanities, and mathematics are offered during the day as well as in the evening.

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 Fire Science to obtain interviews with prospective employers to help them plan their careers. Some municipal fire departments may have certain requirements that must be satisfied for employment.

### 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	
4.202-4	Math II, III	
5.250	Fire Fighting Skills I	
5.251	Fire Fighting Skills II	
5.253	Fire Apparatus & Equipment	
5.254	Introduction to Fire Protection	
5.245	Rescue & Emergency Care for Fire Science	
5.264	Building Const. for Fire Prevention	
HE 250	Personal Health	
PE 190	Physical Education	

### SOPHOMORE YEAR

Course No.	Course Title	On Demand
1.112	Technical Report Writing	
1.124	American Institutions	
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	

**5.245 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.

**5.250 Fire Fighting Skills I  
9 class 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  
7 class 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  
5 class 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.

**5.264 Building Construction for Fire  
Prevention  
5 class 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  
5 class 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  
and Management  
3 class hrs/wk 3 cr.**

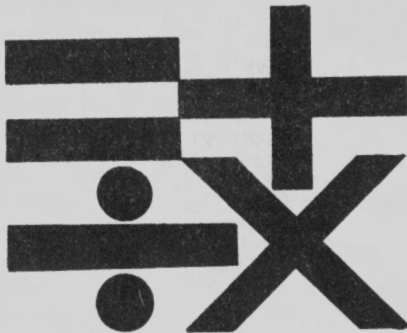
This course covers the duties and responsibilities of a department officer and the methods of organizing, maintaining and operating a fire department. Discussed are department communication, fire equipment, training, fire prevention and fire fighting, records and reports.

**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 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.



# MATHEMATICS

**1.109 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.

**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 also introduces rational expressions, factoring, and 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.

**1.127 Study Skills Seminar — Mathematics**  
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.

**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, 4.204 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 measurement and conversion, integers, introduction to algebra, solving simple equations and introduction to Geometry. The Algebra and Geometry will also be used to solve typical occupational formulas and related applied problems. Prerequisite: Math I (4.200) or satisfactory arithmetic score or consent of the instructor.

**4.204:** Emphasis will be placed on Basic Algebra, Geometry, and Basic Trigonometry, such as: equations, formulas, graphs, ratio and proportions, polynomials, Pythagorean Theorem, area of circles and polygons, constructions, volume of basic geometrical shapes, logarithms, trig. ratios, and triangle applications.

The Algebra, Geometry and Trig. will be used to solve typical occupational formulas and related applied problems. Prerequisite: Math II (4.202) or consent of instructor.

**6.540 Slide Rule**  
3 class hrs/wk 1 cr. On Demand

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.

**6.550 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.

Prerequisite: At least a 'B' in high school Algebra I, Elements of Algebra (1.110) and/or consent of the instructor.

**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: 6.261.

**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 concepts to field problems. Prerequisite: Tech Math II, 6.552.

**Mth 95 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, linear and quadratic 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 95 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 95.

**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 95 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, anti-differentiation.

**Mth 201:** The definite integral, fundamental theorem of calculus, applications of integration, differentiation and integration of transcendental and trigonometric functions.

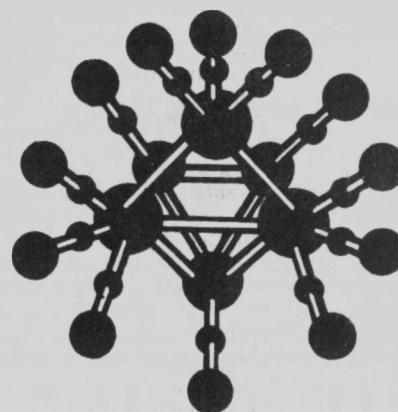
**Mth 202:** Techniques of integration, approximate integration, vectors in the plane, hyperbolic functions, improper integrals, vectors and analytic geometry in three dimensional space.

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

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

**Mth 233 Introduction to Numerical Computation**  
3 class hrs/wk 3 cr. W/Sp

Basic principles of computation; programming a computer in an algebraic language. Prerequisite: Mth 95 or consent of the instructor.



# PHYSICAL SCIENCES

**4.205, 206 Basic Chemistry I, II**  
5 class hrs/wk 4 cr. Sm/F/W/Sp

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 95.

**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.

**Ch 234 Quantitative Analysis**  
8 class hrs/wk 4 cr. Sp

Service course on classical and instrumental analytical techniques for students in the life sciences.



**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: Mth 95.

**G 201-202-203 Geology**  
3 class hrs/wk 3 cr. F/W/Sp

Earth materials, processes and forms, formation of economic mineral deposits, the main events in the history of the earth.

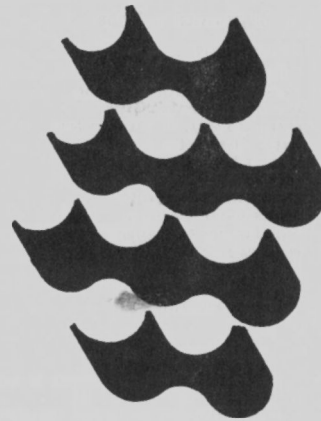
**G 201:** Introduction, matter and minerals, weathering, soils, the Geologic Column and Time.

**G 202:** Sculpture of the land including ground water, glaciers, deserts, coasts and continental shelves, the deep sea floor and sedimentary strata.

**G 203:** Earth movement, evaluation of the lithosphere, geology in industry, and economic mineral deposits - metallic and nonmetallic.

**G 204, 205, 206 Geology Laboratory**  
3 class hrs/wk 1 cr.

Laboratory and field work to accompany G 201, 202, 203.



# WASTEWATER TECHNOLOGY

The Wastewater Technology curriculum is structured to develop graduates who will be qualified for employment as Wastewater Technology Plant Operators. A firm foundation in the sciences of chemistry, hydraulics and practical physics, and technical math is offered; followed by specialized courses in sanitary microbiology and chemistry where the student performs the actual tests used in the control of treatment plant processing.

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 in which the student works full time in a wastewater treatment plant.

Students may qualify for a one-year certificate by completing the curriculum for the first year or an Associate of Science Degree by completing the full two-year curriculum.

**Freshman Year**

Course No.	Course Title	Sm	F	W	Sp
1.101	Communication Skills I				3
4.200	Mathematics I* or		4		
6.551	Technical Math I*				
4.202	Mathematics II* or			4	
6.552	Technical Math II*				
4.204	Mathematics III* or				4
6.553	Technical Math III*				
6.101	Intro. to Environmental Tech		3		
6.114	Sanitary Microbiology			4	
6.151	Wastewater Technology I		4		
6.152	Wastewater Technology II			4	
6.153	Wastewater Technology III				4
6.156	Wastewater Technology VI				4
6.168	In-Plant Practicum**	16			
6.173	Sanitary Chemistry I		4		
6.174	Sanitary Chemistry II			4	
6.175	Sanitary Chemistry III				4
		16	15	16	19

**Sophomore Year**

Course No.	Course Title	Sm	F	W	Sp
1.102	Communication Skills II				3
1.112	Technical Report Writing		3		
1.124	American Institutions		3		
1.606	Intro. to Psy. & Human Rel.			3	
4.205	Basic Chemistry I		4		
4.206	Basic Chemistry II			4	
6.120	Prin. of Ecology				3
6.154	Wastewater Tech. IV			4	
6.155	Wastewater Tech. V				4
6.161	Wastewater Management I			4	
6.162	Wastewater Management II				4
Mb130	Intro. Microbiology		3		
PE190	Physical Education		1	1	1
HE250	Personal Health		3		
		17 16 15			

\*Mathematics — In A.S. program student is expected to reach level of Tech. Math III.  
 — In Certificate program, student must take one year of math and reach at least level of Math III.

\*\*Certificate program students will spend OJT time equivalent to 10 credit hours throughout the year. In Plant Practicum must be taken after the first three terms.

**6.114 Sanitary Microbiology**  
 6 class hrs/wk 4 cr. F  
 This course will enable the student to identify and describe the characteristics of microorganisms associated with Wastewater Technology processes and describe how microorganisms are used as indicators of water quality. The student will also learn to perform the microbiological tests associated with Wastewater Technology processes.

**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.

**6.120 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.

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

**6.152 Wastewater Technology II**  
 6 class hrs/wk 4 cr. W  
 A continuation of Wastewater Tech I.

**6.153 Wastewater Technology III**  
 6 class hrs/wk 4 cr. Sp  
 A specialized approach to the treatment process, abnormal conditions, tools and maintenance.

**6.154 Wastewater Technology IV**  
 6 class hrs/wk 4 cr. W  
 A continuation of Wastewater III.  
 Prerequisite: Wastewater Technology III. In Plant Practicum.

**6.155 Wastewater Technology V**  
 6 class hrs/wk 4 cr. Sp  
 A continuation and culmination of previous wastewater technology courses stressing the interaction of plant processes.

**6.156 Wastewater Technology VI**  
 6 class hrs/wk 4 cr. Sp  
 A study of the treatment of potable water and advanced wastewater technology processes.

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

**6.162 Wastewater Management II**  
 4 class hrs/wk 4 cr. Sp  
 This course will enable the student to establish procedures for hiring, orienting, disciplining and discharging wastewater treatment plant personnel, promote 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.

**6.168 In Plant Practicum I**  
 40 class hrs/wk 16 cr. Sm  
 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.  
 Prerequisite: Wastewater Technology II, Sanitary Microbiology, Sanitary Chemistry I, II, III.

**6.173 Sanitary Chemistry I**  
 5 class hrs/wk 4 cr. F  
 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: None.

**6.174 Sanitary Chemistry II**  
 5 class hrs/wk 4 cr. W  
 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.  
 Prerequisite: None.

**6.175 Sanitary Chemistry III**  
 5 class hrs/wk 4 cr. Sp  
 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, CO<sub>2</sub>, H<sub>2</sub>S, CH<sub>4</sub>, grease Ph, (potentiometric, conductivity, dissolved oxygen (by meter) and BOD-ultimate (Warburg procedure).  
 Prerequisite: None.

**TRANSFER CURRICULA**

The curricula outlined below are intended to help students determine which transfer courses they should take at LBCC based on the four-year degree program being considered and the four-year college to which the courses will be transferred. Before students enroll for any transfer courses they intend to apply towards a bachelors degree they should talk with a counselor.

**Agriculture and Science**

**Freshman Year**

Course No.	Course Title	F	W	Sp
Wr 121-3	English Composition	3	(3)	(3)
Ch 104-6	General Chemistry	5	5	5
Mth 95	Intermediate Algebra		4	
Mth 101	College Algebra			4
Bot 201-3	General Botany or			
Bi 101-3	General Biology or			
Z 201-3	General Zoology I	3-4	3-4	3-4
PE 190	Physical Education	1	1	1
HE 250	Personal Health		3	
	Electives	3	0-3	2
		<hr/>	<hr/>	<hr/>
		15-16	15-18	15-19

**Sophomore Year**

Course No.	Course Title	F	W	Sp
	Physical Science electives	3-4	3-4	3-4
Ec 201-3	Principles of Economics	3	3	3
Sp 111-3	Fundamentals of Speech	3	3	3
Mth 102	Trigonometry	4		
Mth 110	Analytic Geometry		4	
Mth 200	Calculus (Mth 201, 202, 203 available)			4
	Electives	3	3	6
		<hr/>	<hr/>	<hr/>
		16-17	16-17	16-17

Maximum acceptable credit: 108 hours

**Dental Hygiene**

**Freshman Year**

Course No.	Course Title	F	W	Sp
Wr 121-122	English Composition		3	3
Bi 101-3	General Biology or	4	4	4
Z 201-3	General Zoology	5	5	5
Ch 104-6	General Chemistry	3	3	3
Soc 204-6	General Sociology	4		
Mth 101	College Algebra			1
PE 190	Physical Education	1	1	1
		<hr/>	<hr/>	<hr/>
		17	16	16

**Dentistry**

**Freshman Year**

Course No.	Course Title	F	W	Sp
Wr 121	English Composition	3		
Ch 104-6	General Chemistry	5	5	5
Mth 101	College Algebra	4		
Mth 102	Trigonometry		4	
Mth 110	Analytic Geometry			4
Z 201-3	Zoology	3	3	3
PE 190	Physical Education	1	1	1
	Electives			3
		<hr/>	<hr/>	<hr/>
		16	16	16

**Engineering**

**Freshman Year**

Course No.	Course Title	F	W	Sp
Mth 101-2	College Algebra, Trigonometry	4	4	
Mth 110	Analytic Geometry			4
Ch 104-6	General Chemistry	5	5	5
Wr 121	English Composition	3		
PE 190	Physical Education	1	1	1
	Electives			
	Social Sciences & Humanities	1-3	4-7	4-7
		<hr/>	<hr/>	<hr/>
		14-16	14-17	14-17

**Forestry**

**Freshman Year**

Course No.	Course Title	F	W	Sp
Bot 201-2	General Botany or	4	4	(4)
Bi 101-3	General Biology			
Ch 104-6	General Chemistry	5	5	5
Mth 101-2	College Algebra, Trigonometry	4	4	
Mth 110	Analytic Geometry			4
Wr 121-3	English Composition	3	3	3
PE 190	Physical Education	1	1	1
HE 250	Personal Health			3
		<hr/>	<hr/>	<hr/>
		17	17	16-19

**Pharmacy**

**Freshman Year**

Course No.	Course Title	F	W	Sp
Wr 121	English Composition		3	
Ch 104-6	General Chemistry	5	5	5
Ec 201-3	Principles of Economics	3	3	3
Soc 204-6	General Sociology	3	3	3
Mth 101-2	College Algebra, Trig.	4	4	
Mth 110	Analytic Geometry			4
PE 190	Physical Education	1	1	1
HE 250	Personal Health			3
		<hr/>	<hr/>	<hr/>
		16	19	19

**Sophomore Year**

Course No.	Course Title	F	W	Sp
Ch 226-8	Organic Chemistry	3	3	3
Ch 229	Organic Chemistry Lab			2
Ph 201-3	General Physics	4	4	4
Psy 201-3	General Psychology	3	3	3
Mth 200-2	Calculus	4	4	4
	Electives	3	3	(3)
		<hr/>	<hr/>	<hr/>
		17	17	16-19

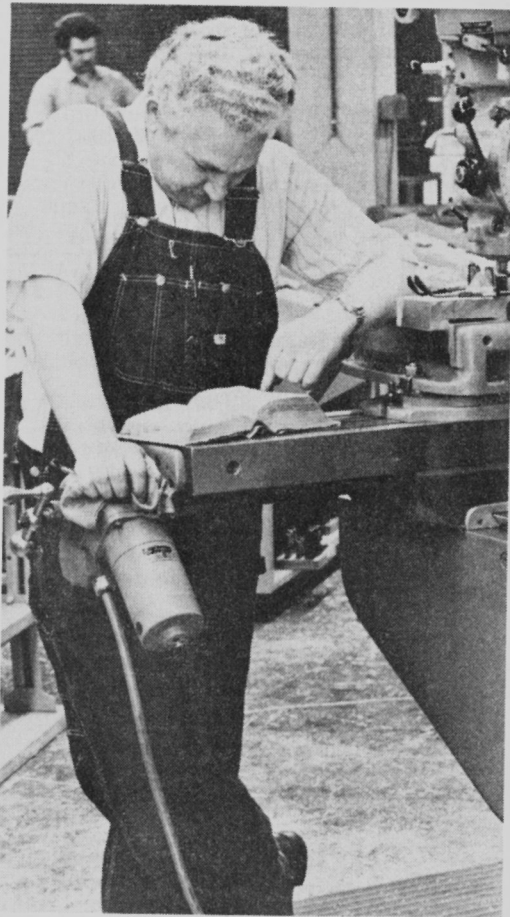
Maximum acceptable credit: 108 hours.



# 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.



## Staff

Daniel D. Martin, Director

W.A. Jordan, Assistant Director, Apprenticeship

Melvin Gilson, Adult Basic Education

James V. Waggoner, Director East Linn Center

O.W. Zielaskowski, Director Benton Center



## CREDIT CLASSES

Most classes offered through the Community Education program are credit classes and in many instances these credits may be applied toward vocational or academic transfer degrees or certificate programs as required courses or as electives. Community Education credit classes may also be applied to a general studies degree. (Degree programs explained on page 9).

## COMMUNITY EDUCATION CENTERS

The staff and facilities of the Community Education Division are separated geographically into three centers in order to better serve the community needs.

The Albany Center is located on the main LBCC campus in the College Center Building and serves the general populations of Albany, Tangent, Shedd, Halsey and Brownsville. Bill Jordan, assistant director.

The Benton Center is located at 1235 N.W. Pierce Way, in Corvallis, adjacent to Corvallis High School, and serves the areas of Corvallis, Philomath, Monroe, Blodgett and Alsea. Orville Zielaskowski, director.

The East Linn Center is located at 1715 Fifth St., Lebanon, across from Lebanon High School, and serves the communities of Lebanon, Sweet Home, Scio and rural East Linn County. James Waggoner, director.

## HIGH SCHOOL CONTINUATION

This program is offered in cooperation with the high schools located in the LBCC district and is designed for presently enrolled high school students who need to make up deficiencies in high school credits. Instruction is offered at night and is based on individual requirements and individual study. Only students officially referred by their high schools may participate in this program. There is a tuition charge for this program.

## ADULT GENERAL EDUCATION

Linn-Benton Community College has several programs designed to meet the needs of persons over 16 years of age who have not finished high school. These programs are:

### ADULT BASIC EDUCATION

To provide for students 16 years of age or older who have not had the opportunity to complete their education through the eighth grade, LBCC offers free classes in Adult Basic Education. These classes offer instruction in the basic skills of reading, writing, English, vocabulary, spelling and mathematics.

### GENERAL EDUCATION DEVELOPMENT (GED)

GED Test Preparation classes are offered free to the student over the age of 16 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).

*Instruction in adult basic education and GED classes includes such information as getting and keeping a job, consumer buying practices, health habits, relationships with other members of the family and community, homemaking and citizenship responsibilities. Free classes are held in many locations throughout the area and are offered both during the day and at night. A student may start at anytime.*

### 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* -

High school students 16 years of age and older can obtain a high school diploma by attending classes at LBCC with the permission and approval of the high school (Simultaneous Enrollment). The high school will evaluate the student's educational records and determine which courses the student must take to meet the high school'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 18 years of age or older or those high school age students who have been released from compulsory attendance under ORS 339.30, in completion of the credits required of all high school graduates in Oregon. LBCC will evaluate the students' educational records and experience and will assist the student in planning a study program that will meet his individual needs.

## VOCATIONAL TRAINING FOR THE DISADVANTAGED AND HANDICAPPED

This is a special program containing two broad areas. One area is designed to offer vocational and related training to those disadvantaged and handicapped people who are being aided by public and private agencies such as Vocational Rehabilitation and the Associations for Retarded Citizens, and who, because of their disadvantage or handicap, are unable to benefit from the regular college curriculum. The training programs are developed for each individual to help himself reach his training potential with the eventual goal of self-support and employment. The second area is a training program for work supervisors of disadvantaged and handicapped persons.

Contact the Coordinator of Special Programs for further information, 928-2361 ext 234.

## HOME ECONOMICS

Gourmet and Chinese cooking, consumer buying, upholstery, lingerie, and sewing with knits are only a few of the day and evening class offerings.

Unusual or short courses are developed upon request if sufficient interest is shown. Vocational preparation classes in the areas of interior design and clothing retail will be offered for the first time in Fall, 1974.

## APPRENTICESHIP

Apprenticeship is a two fold program; the indentured apprentice is employed as a learner of skills through on-the-job work experience and receives related training in the classroom. Classes are currently being offered at Linn-Benton Community College for the following crafts and trades: Inside Wireman, Industrial Maintenance Mechanic, Industrial Millwright, Industrial Pipefitter, Industrial Welder, Manufacturing Plant Electrician, and Power Lineman.

Being an indentured apprentice is a condition for entering related training classes. 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.

Recognized journeymen will be granted 45 credits towards the Crafts and Industrial Trades degree. An additional 45 credits must be earned. Specific course descriptions are outlined in the Community Education catalog.

# Administration and Staff

## OREGON BOARD OF EDUCATION

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Eugene H. Fisher, Vice-Chairman  
Dr. Eleanor Beard  
Richard F. Deich  
Francis I. Smith  
Kenneth L. Smith  
Frank M. Warren

Lakeview  
Oakland  
Lake Oswego  
Portland  
Portland  
Warm Springs  
Portland

Jesse Fasold, Superintendent of Public Instruction  
Carrol deBroekert, Associate Superintendent for  
Community Colleges & Career Education

## LBCC BOARD OF EDUCATION

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Dr. Virgil H. Freed  
H.L. Hammond Jr.  
Earl S. Hirsheimer  
Elizabeth Howe  
Russell W. Tripp  
Ethel B. Yocum

Corvallis (Zone 6-7)  
Lebanon (Zone 4)  
Corvallis (Zone 6-7)  
Sweet Home (Zone 1)  
Blodgett (Zone 5)  
Albany (Zone 2-3)  
Albany (Zone 2-3)

## LBCC ADMINISTRATION AND PROFESSIONAL SUPPORT STAFF

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President

Dr. O.R. Adams  
A. Lee Archibald  
Vernon E. Farnell

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Dean of Students  
Dean of Business Affairs

D. Jon Carnahan  
Kenneth D. Cheney  
Philip V. Clark  
Barbara J. Dixon  
Raymond A. Jean  
Wilfred A. Jordan  
William D. Maier  
Dr. Dariel D. Martin  
H. Richard McClain  
Dr. Robert A. Miller  
Michael W. Patrick  
Dr. Peter C. Scott  
William Siebler  
Robert D. Talbott  
James V. Waggoner  
O.W. Zielaskowski

Director of Admissions and Registrar  
Director of Humanities & Social Services Division  
Director of Business & Industrial Division  
Assistant to Dean of Instruction  
Director of Facilities  
Assistant Director of Community Education  
Director of Accounting Services  
Director of Community Education  
Director of Allied Health & Physical Education Division  
Director of Student Activities  
Director of Financial Aids and Placement  
Director of Science & Technology Division  
Director of Learning Resource Center  
Director of Guidance Services  
Director of East Linn Center  
Director of Benton Center

R. Kirk Berger  
Sue Cripe  
David B. Haugen  
Judith Green

Coordinator of Public Information & Publications  
Assistant Registrar  
Coordinator of Veterans Affairs  
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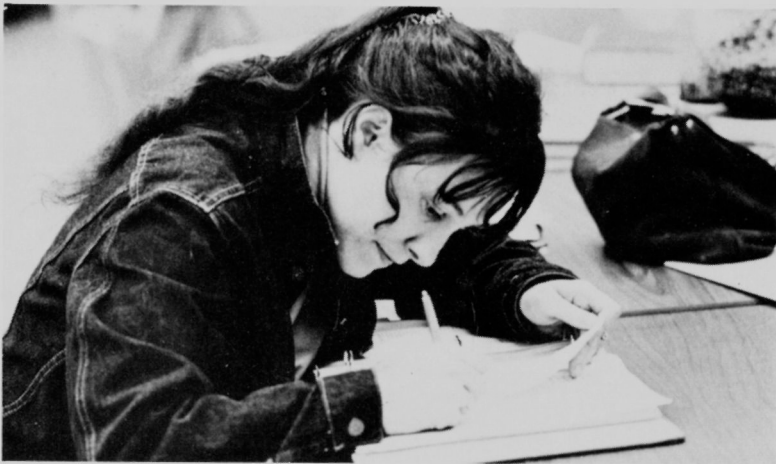
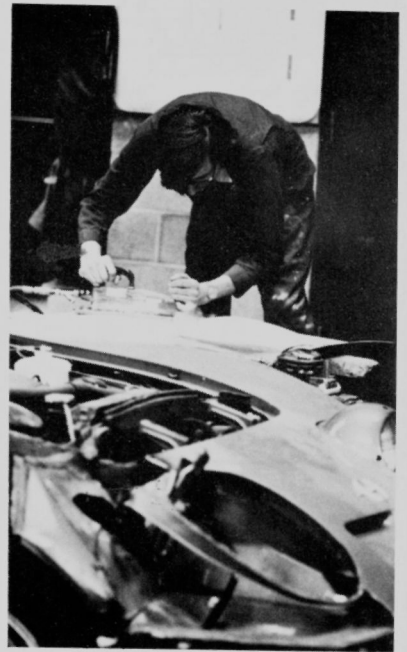


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