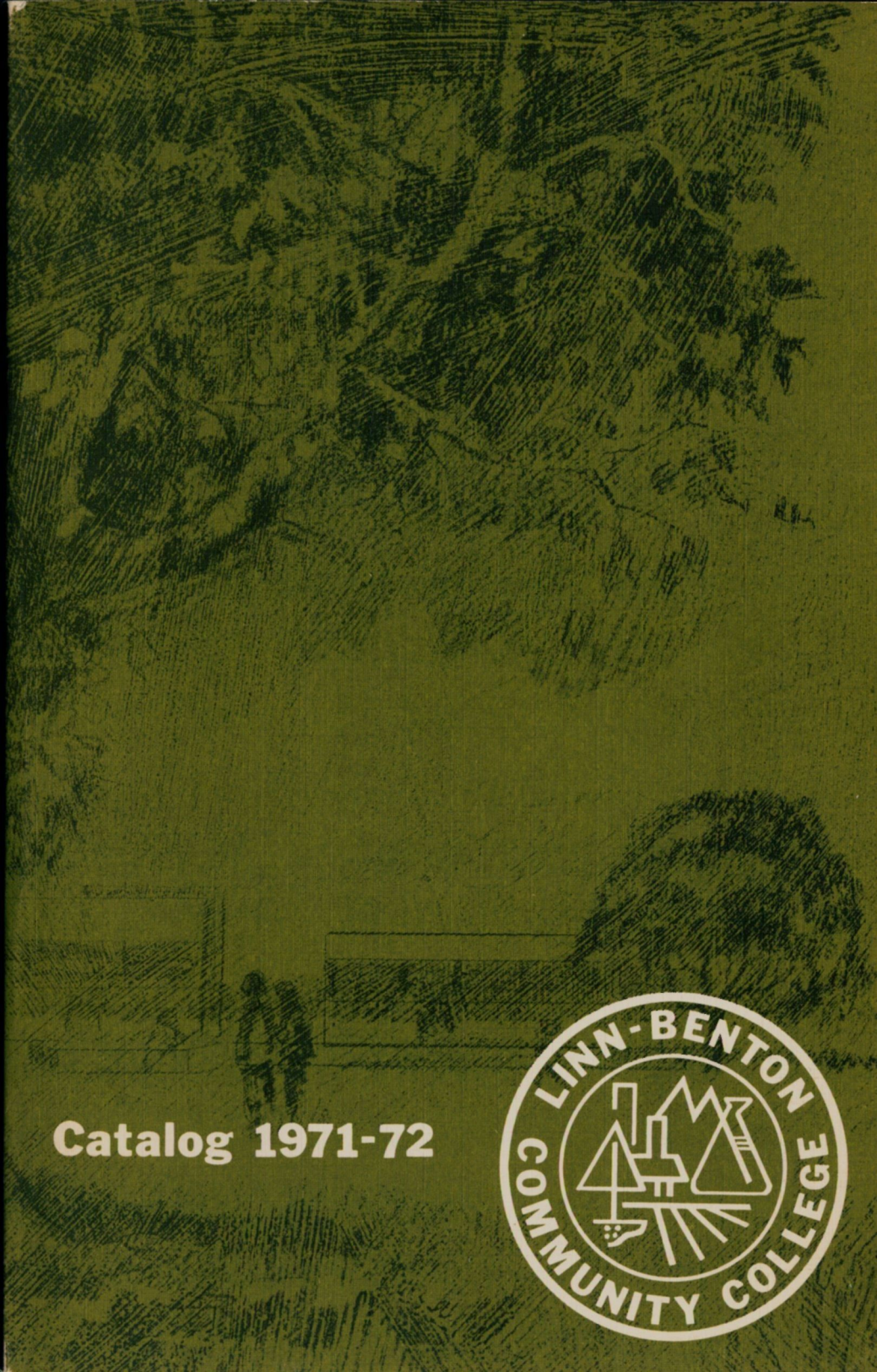

Catalog 1971-72

LINN-BENTON COMMUNITY COLLEGE

CALENDAR FOR 1971-72

SUMMER TERM 1971	
Registration	June 16, 17, 18
Classes begin	June 21
Last day to Register or add courses	June 25
Independence Day vacation	July 5
Last day to drop with the Automatic "W"	August 27
Final Exams	August 30, 31, Sept. 1
Last Day of Summer School	September 3
FALL TERM – 1971	
Registration	July 12 to September 24
Classes begin	September 27
Last day to Register or add courses	October 1
Thanksgiving	November 25-28
Last day to drop with the Automatic "W"	December 10
Final Exams	December 13, 14, 15
Last day of Fall Quarter	December 17
Christmas Vacation	December 18
WINTER TERM – 1972	
Registration	November 29
Classes begin	January 3
Last day to Register or add courses	January 7
Last day to drop with the Automatic "W"	March 10
Final Exams	March 13, 14, 15
Last day of Winter Quarter	March 17
Spring Recess	March 20-24
SPRING TERM – 1972	
Registration begins	February 28
Classes begin	March 27
Last day to Register or add courses	March 31
Memorial Day	May 31
Last day to drop with the Automatic "W"	June 2
Final Exams	June 5, 6, 7
Graduation	June 9
Last day of Spring Quarter	June 9
SUMMER TERM – 1972	
Registration	June 12
Classes begin	June 19
Last day to Register or add courses	June 23
Independence Day vacation	July 4
Last day to drop with the Automatic "W"	August 25
Final Exams	August 28, 29, 30
Last day of Summer School	September 1

LINN-BENTON COMMUNITY COLLEGE

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

THE PHILOSOPHY OF THE COLLEGE

Linn-Benton Community College is dedicated to providing learning opportunities at minimum cost to the student because of the conviction that the fullest possible development of each individual's abilities is essential to the welfare of the community, the state, and the nation.

Linn-Benton Community College is dedicated to offering opportunities for the nurture and development of the mind – the mind free to create and innovate, to move from mental adolescence to intellectual maturity.

This dedication commits the college to offer opportunities to every student to develop his unique potential and to explore his abilities and talents. It commits the college to present diversified programs and to experiment with instructional methods within the limit of its resources. It commits the college to promote the idea that students pursue education beyond the curriculum, to widening horizons, and throughout their lifetime. It commits the college to offer its resources to the entire community and, likewise, to enhance and exploit the resources of the community. It commits the college to evaluate the quality of its offerings continuously, as well as the standards of achievement, the effectiveness of its instruction, and the relevance of its programs.

Linn-Benton Community College adheres to the principles of an open-door college. Entry is unrestricted to graduates of accredited high schools; to non-high school graduates, 18 years of age or older, who have satisfactorily completed the GED tests; and, to older, non-high school graduates who may be admitted as special students. The open-door philosophy will be followed, as permitted by district resources. The "open-door" policy is not synonymous with "open-door" curriculum. Appropriate standards of performance must be maintained within each course.

Implementation of Philosophy

In view of its nature, its role, and its philosophy, Linn–Benton Community College designs its educational program to meet five purposes, singly, or in combination:

1. Occupational – Vocational – Technical Education
2. Counseling and Guidance Services
3. Transfer or Lower Division Education
4. Continuing and Adult Education
5. General Education

1. Occupational – Vocational – Technical Education: This division provides curricula designed to prepare the student for employment. This division of the college serves the community, providing business, industry and the various trades with competent workers who have learned basic skills and knowledge in their special field. The objectives of the division are to:

a. Provide pre-employment instruction in the development of manipulative

skills and technical knowledge, including job orientation, business standards and ethics, safety, customer relations, and responsibilities of good citizenship.

b. Assist those requiring re-training and advance technology by providing vocational-technical offerings to meet changing needs in the industrial community.

c. Provide apprenticeship and intensive training necessary for further development of trade skills and technical knowledge of those currently employed in business and industry.

d. Provide the vocational-technical student with the opportunity to further his educational objectives through participation in a program leading to an Associate in Science, Associate in Arts degree, or a Certificate of Achievement.

e. Contribute to the economic and general welfare of the community by providing conscientious, productive and intelligent employees.

2. **Counseling and Guidance Services:** Because Linn-Benton Community College recognizes the importance of counseling, a comprehensive counseling program is provided. To the extent that the teaching of the community college is directed toward serving the needs of every student, each faculty member is conceived of as a counseling and guidance worker. Counselors work with staff, students, and the community-at-large, business and industry, state welfare agencies, and with high schools and four-year colleges. Since many students enter college with unreal aspirations, a major function of counseling and guidance is to help such students evaluate their goals and enter upon possible and useful programs.

3. **Transfer of Lower Division Education:** The college provides courses paralleling those of the lower division of the Oregon state colleges and universities so that qualified students may transfer to four-year institutions.

4. **Continuing and Adult Education:** The general purpose of adult education is to provide learning opportunities for those who wish to improve themselves on the job, to prepare for a new position, or simply for avocational interests. The explosion of knowledge in the past few decades has made obsolescence a problem for even highly skilled workers. The adult program offered will reflect the needs and demands of the community. Increased leisure will broaden the demands for services for adults and the range of services offered generally constitute an index of the level of community culture. Included within the adult education program are occupational extension classes and a high school completion program in cooperation with district high schools.

5. **General Education:** Throughout all courses in the college, emphasis is placed on developing the student's power of analysis and synthesis and to increase his ability to use his mind creatively. The college offers to all students, and requires of its graduates, a pattern of courses designed to produce an awareness of self and to provide: (a) a basic competence in the English language in its written and spoken forms; (b) a basic competence in mathematics; (c) a knowledge of American history, government, and economic systems; (d) regard

for physical and mental health; (e) an understanding of the principles of the major division of human studies, humanities and science; and, (f) knowledge, indepth, of one subject area.

Quality within diversity is the major purpose of the comprehensive community college and is the approach to which Linn-Benton Community College subscribes. An open door offers a wide range of programs, each at its proper level, and each of high quality for its intended purpose. Extensive guidance, counseling and testing procedures insure students of being placed in appropriate curricula.

THE HISTORY AND 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 will be awarded in the spring of 1971, with occupancy scheduled for the fall of 1973.

ACCREDITATION

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

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

YEAR-AROUND COLLEGE

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

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

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

The College

ADMISSION PROCEDURE

APPLICATION

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

When a student has provided the college with the required application and transcript, the applicant will receive a letter of acceptance.

Students enrolling for 7 or fewer credits may make application at the time of registration and are not required to secure transcripts until they have accumulated 30 credits.

TESTING

In cases where students have taken college entrance tests such as the College Entrance Examination Board Tests and/or the American College Testing Examination, such scores should be filed with the Admissions Office. It is to the student's advantage to provide the counseling office with available test scores. These tests are used for counseling purposes only and not for admissions screening. In several occupational-technical areas, aptitude tests are sometimes recommended.

A variety of interest tests are available through the counseling center. The state employment service also provides general aptitude testing. The college counselors will sometimes recommend this special test-battery for placement and counseling purposes.

Testing for high school equivalency certification (GED) is available through the counseling center.

Students applying for admission to the Associate Degree Nursing program are required to take the nursing placement battery. Dates for taking the ADN test are available through the counseling center.

ADMISSION REQUIREMENTS

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

Students applying to enter one of the occupational programs must be 18 years of age and must, in the judgment of the admistration, be able to benefit

from the instruction offered. Admission to occupational programs varies slightly, but is generally on a first-come, first-serve basis. Specific admission requirements for health occupations are available through the student personnel office or counseling center. The administration reserves the right to give priority to district residents in specific occupational and vocational programs.

FOREIGN STUDENTS

Foreign student admission is on a selective basis, and those desiring to enroll in classes at Linn-Benton Community College should contact the Office of the Dean of Students. These students are required to take the TOEFL test to determine their eligibility for admission.

ADMISSION TO HEALTH OCCUPATION PROGRAMS

Admission to the several health occupation programs at LBCC is determined by the following application processes. Since the admission of a new class each fall quarter is limited by the present College staff and facilities, the College is required to select those individuals who, on the basis of their academic, health and personal qualifications, can most benefit from the health occupations programs. Even though individuals may not be accepted into a specific health occupation program, the College is committed to assist applicants in overcoming their deficiency or to assist them in finding another occupational field more appropriate for their aptitudes and experience.

In addition to the College general requirements for admission, each individual applying for health occupations must satisfy the following specific requirements:

ASSOCIATE DEGREE NURSING (RN) (Two years):

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

DENTAL ASSISTANT (One year):

Dental assistant applicants must: (1) complete the General Aptitude Test Battery (GATB) through the local employment office and have test scores

forwarded to the Admissions Office. (2) be interviewed by a member of the Admissions Committee.

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

Applicants will be notified of the disposition of their application by August 1. Upon acceptance to the dental assisting program, the student is required to complete a standard form physical examination which is available through the Admissions Office. For further information students may contact the Counseling Office or the Director of the Dental Program.

NURSING ASSISTANT (Three months):

Individuals wishing to seek admission to the nursing assistant program must: (1) have high school transcripts or General Educational Development Test (GED) scores on file. GED Tests are given through the Counseling Center. (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's program are required to complete the standard physical examination form available through the Admissions Office. For further information you may contact the Counseling Center or the Admissions Office.

UNIQUE PROGRAMS

Out-of-District students are allowed to enroll in LBCC unique programs (Ag. Services Technology and Environmental Technology) at In-District tuition rates. Priority will be given to In-District students.

HIGH SCHOOL STUDENT POLICY

Linn-Benton Community College, working in cooperation with the local school districts, will accept some selected high school students on a part-time basis in selected LBCC programs. Approval for attendance must be obtained from the high school prior to acceptance by LBCC. For additional information regarding con-current high school-college enrollment, contact the Dean of Students.

ADMISSION OF SPECIAL STUDENTS

Persons qualified by maturity and ability to do satisfactory college work but who fail in some respect to meet the requirements for regular standing may apply for admission as a special student until such entrance deficiencies are removed. Transcripts for full-time special students will not be forwarded to another institution until the deficiency has been removed.

Persons enrolled on a non-credit basis, or persons enrolled in a program of less than seven credits shall also be classified as special students. Students in this category may be admitted without application and without presenting a transcript of previous high school or college work.

PHYSICAL EXAMINATION REPORT

A physical examination by a licensed physician is required of all students enrolling in nursing and dental assisting. The physical exam forms are available in the Registrar's Office.

REGISTRATION

1. Check with Student Personnel Office to be sure that all records and materials are on file as explained under "Admission Procedure."
2. Pre-registration counselor conferences are available for those students desiring advice and assistance in planning their program. Make an appointment with a counselor for a schedule-planning session. Fall quarter counseling and registration begins July 12.
3. When your program has been approved by a counselor, complete registration at the Student Personnel Office. Fees must be paid at the time of registration unless prior arrangements have been made with the Dean of Students. Near the end of each school quarter, a new schedule of classes is available. Registration for the following quarter begins on that date. Students planning to enroll for 8 or more credits must register in person. Registration is not complete until tuition and fees are paid.

PRE-COLLEGE COUNSELING

All new students planning a full-time program must arrange a conference with the counseling center. With assistance from a counselor the student will plan a course of study. At this meeting the counselor will interpret the placement test scores (if available) and school transcripts. By using these sources of information and the student-stated occupational preference, a schedule of classes is planned.

New students should call the college for a counseling–registration appointment. Fall quarter counseling and registration begins July 12. The summer counseling–registration period allows the student to make several appointments and be free from the usual pressure of college registration.

PROGRAM CHANGES

Adding a course: Full-time students may add courses only during the first week of class.

Withdrawal: A student may officially withdraw from a course up to the last regular day of class each term.

AUDITING CLASSES

Students regularly enrolled may request admittance to a class as an auditor. Auditors will be accepted only if space is available in the class. Charges for auditing will be the same as regular credit enrollment.

FEES AND EXPENSES

Tuition and special fees must be paid in full at the time of registration unless special arrangements have been made with the Dean of Students.

Programs offered by Linn-Benton Community College are approved by the State and Federal Veterans' Administrations and the Oregon Division of Vocational Rehabilitation.

I. Quarterly Fee Schedule – Credit Classes

Credit Hours	Resident Students	Non-Resident Students	Out-of-State Students
1	$14.00 min.	$14.00 min.	$35.00
2	14.00 min.	26.00 min.	70.00
3	21.00 min.	39.00 min.	105.00
4	28.00 min.	52.00 min.	140.00
5	35.00 min.	65.00 min.	175.00
6	42.00 min.	78.00 min.	210.00
7	49.00 min.	91.00 min.	245.00
8	56.00 min.	104.00 min.	280.00
9	63.00 min.	117.00 min.	315.00
10	70.00 min.	130.00 min.	350.00
11	77.00 min.	143.00 min.	385.00
12 or more	84.00 max.	156.00 max.	420.00 max.

($1.00 added to Resident per credit hour charge. $2.00 added to Non-Resident per credit hour charge. $2.00 added to Out-of-State per credit hour charge.)

Minimum charge per class – $14.00 (30 hours classroom instruction)

II Adult Education

Tuition is based on 30 hours of instruction for $14.00; however, additional fees may be charged as a laboratory fee for materials and supplies.

(Adult education – from $12.00 to $14.00 basic charge for 30 hours of instruction.)

*** Residency

A student is considered a resident of the district if:

1. His parents are bona fide residents of the Linn-Benton Community College District.
2. The student is over 21 years of age or married and can present evidence that he has established permanent residency in the district at least 90 days prior to registration.

Fees

Change of Program (After classes begin)	$ 2.00
Credit by Examination	5.00
*Student Medical Insurance	10.00 per quarter

Late Fees: Individuals registering late must pay an additional $1.00 per day up to a maximum of $10.00 during the late registration period. (See school calendar, inside front cover.)

REFUNDS

A full-time student withdrawing from school by the end of the fifth week will receive a full refund of tuition less $15.00. Part-time students with seven or fewer credits will receive a full refund less $5.00. Withdrawals after that date will receive no refund.

*Waiver available.

Each individual registering for full-time attendance (12 hours or more) automatically is registered for the Medical Insurance Plan. An individual may choose not to participate, and in this instance a waiver form may be completed.

ACADEMIC REQUIREMENTS AND SCHOOL STANDARDS

CREDITS

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

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

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

STUDENT CREDIT LOAD

You are considered a full-time student if you register for 12 or more term hours. You may mix your schedule by registering for some general studies courses and some vocational-technical courses. If you must work part time while attending the community college, you should bear in mind that most classes

require one or two hours of preparation for each class hour. Working students should adjust their work schedules accordingly or register for fewer class hours. In many areas, there are suggested curricula to cover one or two years of study. Students who must work can schedule a two-year curriculum over a longer period of time.

Lower division studies students should schedule an average of 15 credit hours a term in order to accumulate 90 hours after two years, for junior standing upon their transfer to a four-year college. No more than 18 hours may be taken in any single term without approval of the Dean of Students.

CREDIT LIMIT RULE

It is the rule at most four-year institutions that after a student has completed 93 term hours, regardless of where the work was taken, the remaining hour requirements must be completed at a four-year institution. Exception to the 93-hour rule is made for good and sufficient reason but usually only after the student has enrolled in the four-year institution. Students may, however, request advanced approval through the four-year institution.

CREDIT BY EXAMINATION

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

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

If the student is successful upon completion of the exam, the credits and a pass (P) grade will be entered on the transcript. No credit change or entry will be made in the case of failure.

Cost: $5.00 test fee
Plus: $3.00 per credit earned

ADVANCED PLACEMENT

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. Amount of credit will be recorded as pass grades (P). Advanced Placement Scores should be forwarded to the LBCC Admissions Office.

GRADING SYSTEM

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 (did not take final)
W – Withdrawal
P – Pass
N – No pass

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

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

A – 4 grade points per credit
B – 3 grade points per credit
C – 2 grade points per credit
D – 1 grade point per credit
F – 0 grade 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

HONOR ROLL

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

ACADEMIC PROBATION

Students will be placed on probation if, during their first quarter of attendance their grade point average drops below 1.7, or during their second quarter their grade point average drops below 2.0, or at the end of their third quarter their accumulative grade point average for all quarters is below 2.00. This rule would only apply to those students who are carrying eight or more credits or who have accumulated 30 or more credits.

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

CLASS ATTENDANCE

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

When absence for some unavoidable reason does occur, it is the obligation of the student to arrange for make-up work with the instructor.

LBCC TRANSCRIPTS

Student transcripts may be secured through the Registrar's Office. The first request for a transcript will be honored without charge. Additional transcripts will be provided at a cost of $1.00 each.

TRANSFER TO OTHER INSTITUTIONS

Lower division students may transfer a maximum of 93 credit hours to a four-year college or university. 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.

We encourage students who are planning to transfer to contact a counselor so that appropriate transfer plans can be made.

DEGREES, DIPLOMAS, CERTIFICATES, GRADUATION REQUIREMENTS

The following degrees will be awarded by Linn-Benton Community College:

The Associate in Arts and the Associate in Science

The requirements for these degrees, which are presented below, are subject to approval of the Board of Education as well as the State Department of Education, Division of Community Colleges.

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

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

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

*See Page 13 for Physical Education requirements.

3. Attend at least two terms, including the last term, and earn at least 24 credits at Linn-Benton Community College.

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

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

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

General Requirements for Associate in Science Degree

The Associate in Science Degree will be awarded to students who satisfy the following requirements:

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

*See Page 13 for Physical Education requirements.

Minor deviations from specific course requirements may be allowed for students who offer sufficient evidence or just cause and who have the approval of the administration. All students are expected to participate in commencement exercises.

Certificates of Completion and Diplomas

Diplomas will be awarded to those students who do not meet the requirements of the A.A. or A.S. Degree but have completed any 90 hours of credit courses with a cumulative grade point of 2.00 and who have attended at least two terms, including the last term, and who have earned at least 24 credit hours at Linn-Benton Community College.

HEALTH AND PHYSICAL EDUCATION REQUIREMENTS

A student intending to obtain an Associate of Arts Degree must earn 5 credits of Physical Education and 2 credits of Health; students obtaining an Associate of Science Degree must earn 3 credits of Physical Education and 2 credits of Health.

Further Requirements:

1. Veterans with two years or more of service and enrolled in the Associate in Arts Degree must earn at least 3 credits of physical education in activity courses as well as 2 credits of health. If enrolled in the Associate in Science Degree, the same Veteran must earn at least 2 credits in physical education as well as the 2 credits in health.

2. In addition to the basic physical education requirement, students are encouraged to elect additional terms of PE 180-190 courses that will be of value in their personal and professional lives.

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. A waiver may be granted for other reasons. Special requests for a waiver will be reviewed by the Dean of Students.
4. Appeal is open to the College President.

STUDENT CONDUCT

Linn-Benton Community College expects that students who enroll in the college accept certain responsibilities as would be expected of any adult. The conduct and behavior of our students either in class or in and around the college facilities is of interest to the college. All school property is to be used with intelligence and care. The use of intoxicants or illegal drugs or having such in one's possession is strictly forbidden by public law and college regulations. Gambling is also prohibited by state and local regulation.

Smoking

Smoking is not permitted in any of the present college classroom facilities by either staff or students. Since smoking would jeopardize the college's use of these facilities, students and staff are requested to adhere faithfully to this rule.

Smoking is permitted in the College Center and administrative areas.

STUDENT PERSONNEL SERVICES

COUNSELING

Because Linn-Benton Community College recognizes the importance of counseling, a comprehensive counseling program is provided. Professional college counselors are available to assist students in establishing or modifying vocational goals and for solving problems of a social or personal nature. Assisting students who plan to transfer to a four-year college or university is also an important phase of the counseling program. Students who have not made a vocational choice may seek assistance through the counseling center (See Pre-College Counseling).

A vocational information and catalog library for institutions of higher education is provided in the Learning Resources Center. Students are encouraged to make use of these available resources.

FINANCIAL AID

It is the philosophy of Linn-Benton Community College that the prime responsibility for financing the student's education lies with the parents and the student. There are sometimes circumstances which cause the student to need special financial assistance. It is the goal of Linn-Benton Community College to provide financial help for all students who need it. This assistance is in the form of loans, scholarships, grants and work-study employment.

Individuals who are planning to attend LBCC in 1971-72 and will need financial assistance in the form of a grant, loan or campus employment should carefully read these application procedures. To qualify for financial aid, a student must show financial need. Linn-Benton Community College uses the Financial Aid Questionnaire in making a determination of financial need. This is a fair and uniform analysis system based upon family income, assets and other resources of the student. Since the college has limited funds for providing financial assistance, applicants are asked to observe the dates for application as specified for each form of financial aid. Financial aids applicants are judged on:

(1)need

(2)date of application

(3)aptitude based upon interest and past performance.

Application dates:

Summer Quarter – May 3 – will be notified by June 7.

Fall Quarter – August 16 – will be notified by September 13.

Winter Quarter – November 15 – will be notified by December 20.

Spring Quarter – February 14, 1972 – will be notified by March 13, 1972.

Individuals may apply after these dates as alternates. Employment for alternates will begin as jobs are available.

COLLEGE WORK STUDY (CWS): Includes on and off campus federally supported part-time employment. Students quality through Financial Need Analysis.

1. Complete the standard Financial Aid Application for Oregon Community Colleges, Pages 1, 2 and 3.
2. Parents complete Page 4, This page should be completed by applicant if financially independent. If you have completed the "Parent Confidential Statement" of the College Scholarship Service, we would recommend that the results be forwarded to LBCC.
3. Contact the Student Personnel Office for an appointment with the Financial Aids Coordinator.

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 Student Personnel Office. **Apply before May 1 or as specified by your high school.**

SCHOLARSHIPS: Several community service organizations and business establishments have offered scholarship assistance for the 1971-72 school year. We recommend that interested individuals contact the Financial Aids Coordinator or high school principal or counselors.

NATIONAL DEFENSE STUDENT LOANS: Major long-term funds are available to all class levels under the National Defense Education Act. An undergraduate student may borrow up to $1,000 per academic year. During the repayment phase, interest is 3 percent per year.

GUARANTEED STUDENT LOAN (GSL): The GSL program is a cooperative effort of the student's (parent's) bank or lending institution and LBCC. The loan interest and repayment is deferred until attendance is terminated. Maximum loan is $1,000 per academic year.

EMERGENCY LOAN: Emergency, short-term loans are available through the Student Personnel Office. Emergency loans are limited to full-time students.

DEFERRED TUITION PAYMENT: Full-time students may have the payment of their tuition extended. A minimum of one-third of the total tuition must be paid by the end of the fifth week of classes.

EDUCATIONAL OPPORTUNITY GRANTS (EOG): This cash grant, federally supported program is established for students with **exceptional** financial needs. Application procedure is the same as for College Work Study.

LAW ENFORCEMENT EDUCATION PROGRAM (LEEP): Financial assistance is available to law enforcement personnel and pre-service law enforcement students in the form of loans and grants.

Eligibility:

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

Application:

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

NURSING GRANTS: This cash grant is for the purpose of assisting students of exceptional financial need to undertake courses of study leading to careers in nursing. Those enrolled as full-time students in a course of study leading to an

associate degree in nursing are eligible to apply. Application procedures are the same as for College Work Study.

PART-TIME STUDENT EMPLOYMENT: Application: Complete an application in the **LBCC Student Employment Office** for on or off campus employment.

G.I. BILL (VETERAN'S BENEFITS): Prospective students who are eligible for veteran's benefits should contact the schools for V.A. approved program information prior to making application for benefits at the Veterans' Administration regional office. Upon receipt of an application, the Veterans Administration will mail the veteran acknowledgment of receipt of the claim and provide a claim number. After processing the application, the Veterans 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 Office of Admissions and Records at the time of initial registration.

ESTIMATED EXPENSES FOR IN-STATE STUDENTS: Individual costs vary according to differences in courses of study, housing, transportation costs, as well as many other factors. The table below outlines estimated average expenses for the academic year.

1. Students commuting from home:

Tuition and Fees (3 terms)	$ 252.00
Books & Supplies	150.00
Transportation & Insurance	480.00
Clothing	90.00
Personal	180.00
Medical	75.00
Total Three Terms	$1,227.00

2. Students **not** living at home:

Tuition and Fees	$ 552.00
Books & Supplies	150.00
Room & Board	1,000.00
Transportation and Insurance	480.00
Clothing	90.00
Personal	180.00
Medical	75.00
Total Three Terms	$2,227.00

3. Married or Independent Students: Contact the Dean of Students for estimating family budgets.

For further information on LBCC Financial Aids, contact the Financial Aid Office.

STUDENT ACTIVITIES

Through the combined efforts of students, faculty and administration, student activities at Linn-Benton Community College have become a balanced campus and community-wide program of events and associations which provides opportunities for the personal, social and cultural development of the individual; and the enjoyment of leisure activities. Among the activities planned by the Associated Students of LBCC for the coming year are convocation speakers, film series, dances, art displays, car rallies, intramurals and the subsidizing of larger events.

The college encourages those student activities which will complement the academic program by providing the opportunities for constructive leadership, cooperative planning and the development of social interests. It is hoped that students will use this year to organize and develop clubs, organizations and activities which complement the educational pursuits of LBCC students.

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 nation-wide level.

COLLEGE CENTER

The College Center serves as the gathering place for all members of the college community – students, faculty, administration, alumni and guests. The College Center provides for the services, conveniences and amenities that the members of the college community desire for getting to know and understand one another through informal association outside the classroom.

Among the services presently provided in the College Center are: food services, meeting rooms, food and drink dispensaries, student government offices, ticket sales, recreational and game equipment, bulletin boards, lost and found, public telephones, housing lists and art displays. The College Center is open from 8:00 a.m. to 10:30 p.m. Monday through Thursday and 8:00 a.m. to 5:00 p.m. on Friday.

HOUSING

Though the college cannot assume responsibility for the housing of students who live away from home while attending this institution, it does maintain a list of available housing in the Office of Student Activities. It should be understood that this is not necessarily an approved housing list and that the college assumes no responsibility in negotiating housing agreements between students and landlords.

PLACEMENT AND EMPLOYMENT

A placement and employment service is provided to assist LBCC students in acquiring part-time employment both on and off campus. This service consists of current listings of job seeking students and job opportunities.

Any interested LBCC student desiring full and/or part-time employment should register with the Employment-Financial Aids Office.

LEARNING RESOURCES

LEARNING RESOURCES CENTER

The center for organized out-of-class learning is the Learning Resources Center (LRC). Here are housed books, periodicals, pamphlets, microfilms, slides, tapes and other materials useful to learning along with the necessary equipment to provide the best use. Reading, listening and viewing assignments can be completed here. Students may also receive assistance in preparing materials for class presentation.

Additional references include collections of reprints, pamphlets, maps and occupational materials.

Closed circuit television, another service of the LRC, was introduced to LBCC classrooms during the first year of the college's operation. The facilities have improved and the program has been strengthened each year. Video tapes may be used for assignments just as audio tapes may be used for listening.

INDIVIDUALIZED INSTRUCTION

Desk space is provided in the LRC for instructors who wish to be available to students and near materials and equipment that they need. Students with problems in reading, basic math, basic English may seek assistance here. Various media are provided, including books and machines. A number of courses employ these media to a great extent.

Programs and Courses of Study

PROGRAMS AND COURSES OF STUDY

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

INTRODUCTION

All offerings of the college, either academic transfer or occupational, are taught as college classes, however, not all courses may be transferred to four-year colleges and universities. Courses which have been approved for transfer by the Oregon State System of Higher Education are numbered from 51-299. Generally, courses numbered 100-110, 200-210, are survey or foundation courses that satisfy group requirements in the language and literature, science, and social science groups. Courses numbered 111-199 are considered freshman level courses and those numbered 200-299 are considered sophomore courses.

Non-transfer vocational-technical occupational courses are numbered below 50; for example, 1.253, 6.024, etc. Some courses in the technical area may be transferable to four-year colleges but students are advised to check with a counselor for the transferability of courses and other information regarding their programs.

OCCUPATIONAL AND VOCATIONAL EDUCATION PROGRAMS

The variety and constantly expanding curriculums of the Occupational and Vocational Division represent organized experiences designed to prepare the student for effective employment or advancement in their chosen vocation.

All curiculums 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.

AGRICULTURE DIVISION

The technological changes affecting agriculture, including farming and the agricultural business and industries serving the farmer, have created a need for a larger number of highly skilled technicians in the grain, seed, turf management and farm supply industry. The industry serves the farmer by providing supplies such as feed, fertilizers and chemicals. Industry must also purchase, process and distribute products of the farm through market channels to consumers throughout the world.

Courses offered within this division are designed to prepare individuals for the many and varied job opportunities available in this rapidly growing industry.

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

Turf and Forage Seed Technology
Turf Management
Fertilizer and Chemicals

Students working toward an Associate Degree follow one of the three options during their freshman year and complete the degree requirements during their sophomore year. In addition, paid on-the-job experience during the summer months between the freshman and sophomore years is offered.

ONE YEAR TURF AND FORAGE SEED PROGRAM

COURSE NO.	COURSE TITLE	CREDITS
8.100	Survey of Agriculture	1
0.668, 4.145	Math	3
1.110, Mth 95,		
Mth 101		
8.125, 8.126, 8.127	Soils, I, II, III	9
Ch 101	General Chemistry	3
Bot 201	Botany	4
1.500	Employer-Employee Relations	3
8.165	Crops	3
8.188	Ag Equipment Maintenance	3
8.120	Seed Technology	3
8.121	Seed Cleaning	3
8.180	Warehouse Management	1
8.130	Agriculture Chemicals	4
8.230	Work Experience	3
	Elective	6
		49

ONE YEAR CERTIFICATE PROGRAM IN TURF MANAGEMENT

COURSE NO.	COURSE TITLE	CREDITS
8.100	Survey of Agriculture	1
0.668, 4.145, 1.110	Math	3
Mth 95, Mth 101		
8.125, 8.126, 8.127	Soils, I, II, III	9
Ch 101	General Chemistry	3
Bot 201	Botany	4
1.500	Employer-Employee Relations	3
8.188	Equipment Maintenance	2
8.130	Agriculture Chemicals	4
8.135, 8.136	Turf Management I, II	4
8.138	Irrigation and Drainage	3
8.140	Landscape Management	2
2.119	Business Management	3
8.230	Work Experience	3
	Elective	6
		50

ONE YEAR CERTIFICATE PROGRAM IN FERTILIZER AND CHEMICALS

COURSE NO.	COURSE TITLE	CREDITS
8.100	Survey of Agriculture	1
0.668, 4.145, 1.110 Mth 95, Mth 101	Math	3
8.125, 8.126, 8.127	Soils I, II, III	9
Ch 101, Ch 102	General Chemistry	3
Bot 201	Botany	4
8.165	Crops	3
8.188	Ag Equipment Maintenance	2
8.130	Agriculture Chemicals	4
2.119	Business Management	3
1.500	Employer-Employee Relations	3
8.230	Work Experience	
	Electives	6
		36

TWO YEAR DEGREE PROGRAM – AGRICULTURE TECHNOLOGY

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

COURSE NO.	COURSE TITLE	CREDITS
1.101, 1.104 (or equivalent)	Communications	6
1.124 (or equivalent)	American Institutions	3
2.110	Principles of Salesmanship	3
1.524	Applied Economics	3
2.518	Business Law	3
1.112	Technical Report Writing	3
4.108	Industrial Safety	3
2.131	Elements of Marketing	3
PE 180	Physical Education	3
HE 250	Health	2
	Work Experience	6
	Electives	9
		47

ALLIED HEALTH DIVISION

ASSOCIATE DEGREE NURSING (ADN) PROGRAM

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 (RN), who will be 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.

Accreditation – The program is accredited by the Oregon Board of Nursing and approved by the Oregon State Board of Education. The curriculum includes general education courses, related science courses, and clinical experience designed to prepare students to become nurse generalists.

For further information regarding the Nursing Program, please contact the admissions office or the counseling offices.

FRESHMAN YEAR

COURSE NO.	COURSE TITLE	CREDITS F	W	S
*5.711, 5.712	Nursing (Fund.) I, II	5	5	
*5.713	Nursing (PCN)			8
*5.726, 5.727, 5.728	Nursing Seminar I, II, III	1	1	1
*4.201, 4.202	Anatomy-Physiology I, II	4	4	
*Psy 201, 202	General Psychology	3	3	
*4.215	Physics	3		
*4.211	Nutrition I		3	
*4.207	Microbiology			3
*Soc 204	General Sociology			3
**PE 180	Physical Education			1
		16	16	16

SOPHOMORE YEAR

COURSE NO.	COURSE TITLE	CREDITS F	W	S
*5.721, 5.722, 5.723	Nursing	9	10	8
*5.729	Nursing Seminar IV			1
Wr 111, 112	Writing	3	3	
*4.212	Nutrition II	3		
**PE 180	Physical Education	1		1
	Humanities		3	
Hst 101	History of Western Civilization			3
	Elective			3
		16	16	16

*Courses REQUIRED for A.D.N.; **must** be taken in sequence.

**Physical education may be taken any quarter.

ONE YEAR PROGRAM

The Dental Assistant curriculum is designed to prepare individuals for receptionist-office management, technical or chairside assistant and inter-office laboratory procedures.

Oregon Law requires Dental Assistants who expose dental x-rays to hold a Certificate of Radiological Proficiency. Roentgenology I, II, III prepares students for examination by the Oregon State Board of Dental Examiners.

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

Application for accreditation has been made to the Oregon State Board of Dental Examiners and the American Dental Association's Council on Dental Education for eligibility to take the Certification Examination administered by the Certifying Board of the American Dental Assistant's Association.

The program accepts one class per year, fall term.

For admission requirements contact the admissions office, or the director of counseling.

DENTAL ASSISTANT

FALL TERM

COURSE NO.	COURSE TITLE	F	W	S	HRS/WK
5.445	Pre-Clinical Orientation	1			3
5.451	Dental Science I	5			6
5.484	Dental Materials I	1			2
5.471	Laboratory Procedures I	3			9
5.461	Roentgenology I	2			2
1.101	Communication Skills	3			3
1.121	Poise, Posture, Personality	2			3

WINTER TERM

5.452	Dental Science II		3		4
5.485	Dental Materials II		1		2
5.472	Laboratory Procedures II		3		9
5.491	Office Management I		2		3
5.493	Clinical Practice I		3		4
5.462	Roentgenology II		1		2
1.101	Communication Skills		3		3
1.606	Introduction to Psychology		3		3

SPRING TERM

5.453	Dental Science III		1	1
5.473	Laboratory Procedures III		1	2
5.492	Office Management II		1	1
5.495	Clinical Practice II		3	3
5.505	Dental Specialties		3	1
5.510	Office Practice		5	20
5.463	Roentgenology III		1	2
		17 19	13	

NURSING ASSISTANT

COURSE DESCRIPTION

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 public health services.

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

Course work includes both class and clinical experience.

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

CURRICULUM

		Contact Hrs.	Clinical Hrs.	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
		104	196	300

BUSINESS DIVISION

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

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

1. A two-year program in Business Administration leading to an Associate in Arts degree;*
2. A two-year program in Secretarial Science – Business Education leading to an Associate in Arts degree;*
3. A two-year program in Business Management leading to an Associate in Science degree;
4. A two-year program in Secretarial Sciences leading to an Associate in Arts degree;
5. A two-year program in Bookkeeping – Clerical leading to an Associate in Science degree;
6. A one-year program in General Business leading to a Certificate of Completion;
7. A one-year program in Secretarial Services leading to a Certificate of Completion;
8. Courses to fit the personal or vocational needs of part-time students in the day or evening programs;
9. Varied general business courses for students majoring in other fields who desire some background and specific knowledge in business.

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

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

MAJOR AREAS OF CONCENTRATION

BUSINESS MANAGEMENT

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

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

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

FRESHMAN YEAR

COURSE NO.	COURSE TITLE	CREDITS F	W	S	Hrs/Wk
1.101, 1.104	Communication Skills I, II		3	3	3
2.530, 2.531, 2.532	Bookkeeping I, II, III	3	3	3	5
2.548	Business English			3	3
2.501	Typewriting I or proficiency	2			4
2.521	Office Machines		3		5
1.524	Applied Economics			3	3
2.515	Business Math	3			3
2.110	Principles of Salesmanship	3			3
PE 180 or 190	Physical Education	1	1	1	3
HE 250	Personal Health		2		2
1.610	Public Speaking			3	3
	Electives, General Ed. and Others - Introduction to Business BA 101 is suggested	4	4		3-4
		16	16	16	

SOPHOMORE YEAR

Option I. Organizational Work Experience

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

COURSE NO.	COURSE TITLE	CREDITS F	W	S	Hrs/Wk
2.631, 2.632, 2.633	Organizational Work Experience	6	6	6	12½
2.751	Personal Development for the Professional Manager	2			3
	or				
2.748	Personal Development for the Career Woman	2			3
2.119	Business Management	3			3
9.743	Income Tax Preparation	3			3
2.518	Business Law		3		3
1.112	Technical Report Writing		3		3
1.606	Psychology of Human Relations			3	3
2.585	Management Decision Simulation			3	3

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

COURSE NO.	COURSE TITLE	CREDITS F	W	S	Hrs/Wk
2.509	Introduction to Data Processing	3			3
2.558	Introduction to Programming	3			3
2.575	Systems and Procedures			3	3
2.131	Elements of Marketing		3		3
2.134	Retail Merchandising			3	3
2.222	Financial Management			3	3
2.534	Cost Accounting		3		3
2.516	Introduction to Business Statistics		3		3

Option II – On-the-Job Training*
Required courses:

COURSE NO.	COURSE TITLE	CREDITS F	W	S	Hrs/Wk
2.710, 2.711, 2.712	On-the-Job Training and Seminar	4	4	4	16
2.748	Personal Development for the Career Woman	2			3
	or				
2.751	Personal Development for the Professional Manager	2			3
2.119	Business Management	3			3
9.743	Income Tax Preparation	3			3
2.518	Business Law		3		3
1.112	Technical Report Writing		3		3
1.606	Psychology of Human Relations			3	3
2.585	Management Decision Simulation			3	3

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

COURSE NO.	COURSE TITLE	CREDITS F	W	S	Hrs/Wk
2.509	Introduction to Data Processing	3			3
2.558	Introduction to Programming	3			3
2.575	Systems and Procedures			3	3
2.131	Elements of Marketing		3		3
2.134	Retail Merchandising			3	3
2.222	Financial Management			3	3
2.534	Cost Accounting		3		3
2.516	Introduction to Business Statistics		3		3

* Students under this option must obtain permission from the Business Division **before** registering for courses at the beginning of the Sophomore year.

BOOKKEEPING – CLERICAL

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

Students completing the program as outlined will earn an Associate Degree.

FRESHMAN YEAR

COURSE NO.	COURSE TITLE	CREDITS F	W	S	Hrs/Wk
2.515	Business Math	3			3
2.501, 2.502					
2.503	Typing I, II, III	2	2	2	4
2.530, 2.531,					
2.532	Bookkeeping I, II, III	3	3	3	5
2.509	Introduction to Data Processing	3			3
2.748	Personal Development for the Career Woman	2			2
	or				
2.751	Personal Development for the Professional Manager	2			3
1.101, 1.104	Communications Skills I, II	3	3		3
HE 250	Personal Health		2		2
2.548	Business English		3		3
2.521	Office Machines		3		5
1.606	Psychology of Human Relations			3	3
2.528	Clerical Office Procedures			4	8
2.575	Systems and Procedures			3	3
		16	16	15	

SOPHOMORE YEAR

The following courses are required for all Bookkeeping – Clerical majors:

COURSE NO.	COURSE TITLE	CREDITS F	W	S	Hrs/Wk
2.631, 2.632, 2.633	Organizational Work Experience	6	6	6	12½
1.112	Technical Report Writing		3		3
9.743	Income Tax Preparation	3			3
PE 180 or 190	Physical Education	1	1	1	3

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

COURSE NO.	COURSE TITLE	CREDITS F	W	S	Hrs/Wk
2.119	Business Management	3			3
2.522	Advanced Office Machines		3		3
2.534	Cost Accounting		3		3
1.524	Applied Economics			3	3
2.516	Business Statistics		3		3
2.518	Business Law		3		3
1.610	Public Speaking	3			3
0.660	Personal Finance			3	3
BA 101	Introduction to Business	4			4
2.222	Financial Management			3	3
2.131	Elements of Marketing		3		3
2.134	Retail Merchandising			3	3

SECRETARIAL SCIENCES

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

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

FRESHMAN YEAR

COURSE NO.	COURSE NAME	CREDITS F	W	S	Hrs/Wk
1.101, 1.104	Communication Skills	3	3		3
2.501, 2.502, 2.503	Typing I, II, III	2	2	2	5
2.541, 2.542, 2.543	Stenography I, II, III	3	3	3	5
2.548	Business English		3		3
2.521	Office Machines		3		5
2.530, 2.531	Bookkeeping I, II		3	3	5
2.528	Clerical Office Procedures			4	8
2.515	Business Math	3			3
1.606	Psychology of Human Relations			3	3
2.748	Personal Development for the Career Woman	2			3
	or				
2.751	Personal Development for the Professional Manager	2			3
HE 250	Personal Health	2			2
PE 180-190	Physical Education	1		1	2
		16	17	16	

SOPHOMORE YEAR

Option I – Organizational Work Experience

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

COURSE NO.	COURSE NAME	CREDITS F	W	S	Hrs/Wk
2.631, 2.632, 2.633	Organizational Work Experience	6	6	6	12½
1.112	Technical Report Writing		3		3
2.545, 2.546, 2.547	Applied Stenography I, II, III	3	3	3	6
9.743	Income Tax Preparation	3			3
PE 180-190	Physical Education		1		2

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

COURSE NO.	COURSE NAME	CREDITS F	W	S	Hrs/Wk
1.610	Public Speaking		3		3
2.518	Business Law			3	3
1.524	Applied Economics	3			3
2.522	Advanced Office Machines		3		5
2.532	Bookkeeping III			3	5
2.509	Introduction to Data Processing	3			3
0.660	Personal Finance			3	3

Option II – On-the-Job Training

COURSE NO.	COURSE NAME	CREDITS F	W	S	Hrs/Wk
2.613, 2.614, 2.615	On-the-Job Training	4	4	4	
1.112	Technical Report Writing		3		
2.545, 2.546, 2.547	Applied Stenography I, II, III	3	3	3	6
9.743	Income Tax	3			
PE 180-190	Physical Education		1		2

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

COURSE NO.	COURSE NAME	CREDITS F	W	S	Hrs/Wk
1.610	Public Speaking		3		3
2.518	Business Law			3	3
1.524	Applied Economics	3			3
2.522	Advanced Office Machines		3		5
2.532	Bookkeeping III			3	5
2.509	Introduction to Data Processing	3			3
0.660	Personal Finance			3	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 a certificate of application with the office of the Registrar, the student will be awarded a certificate of accomplishment.

COURSE NO.	COURSE TITLE	CREDITS F	W	S	Hrs/Wk
1.101, 1.104	Communication Skills I, II	3	3		3
2.501, 2.502, 2.503	Typing I, II, III	2	2	2	5
2.541, 2.542, 2.543	Stenography I, II, III	3	3	3	5
2.548	Business English		3		3
2.521	Office Machines		3		5
2.530, 2.531	Bookkeeping I, II		3	3	5
2.528	Clerical Office Procedures			4	8
2.515	Business Math	3			3
1.606	Psychology of Human Relations			3	3
2.748	Personal Development for the Career Woman	2			3
	or				
2.751	Personal Development for the Professional Manager	2			3
	Electives	3		1	
		16	17	16	

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

GENERAL BUSINESS

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

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

COURSE NO.	COURSE TITLE	CREDITS F	W	S	Hrs/Wk
1.101, 1.104	Communication Skills I, II	3	3		3
2.110	Principles of Salesmanship	3			3
2.501	Typing I	2			4
2.515	Business Mathematics	3			3
2.530, 2.531, 2.532	Bookkeeping I, II, III	3	3	3	5
2.748	Personal Development for the Career Woman	2			3
	or				
2.751	Personal Development for the Professional Manager	2			3
1.112	Technical Report Writing		3		3
2.521	Office Machines		3		5
1.610	Public Speaking		3		3
1.606	Psychology of Human Relations			3	3
2.518	Business Law			3	3
2.548	Business English			3	3
2.119	Business Management			3	3

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

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	CREDITS F	W	S	Hrs/Wk
1.101, 1.104	Communications Skills or				
Wr 111, 112	English Composition	3	3		3
2.509	Intro to Data Processing	3			3
2.558	Intro to Programming	3			3
BA 211, 212 or	Accounting or Bookkeeping	3	3	3	3
2.530, 2.531	Mathematics (if required)	4			5
2.562	Micro Language I		3		5
2.565	Documentation Procedures		3		3
HE 250	Personal Health		2		2
2.563	Micro Language II			3	5
2.575	Systems and Procedures			3	3
1.524	Applied Economics			3	3
2.518	Business Law			3	3
PE 180 or PE 190	Physical Education	1	1	1	3
		17	15	16	

SOPHOMORE YEAR

COURSE NO.	COURSE TITLE	CREDITS F	W	S	Hrs/Wk
2.569	Macro Language I (R.P.G.)	3			5
2.566	Operating Systems Concepts	3			3
1.606, 1.607	Psychology of Human Relations	3			3
2.536	Analysis of Financial Statements	3			3
2.570	Macro Language II (R.P.G.)		3		5
2.578	Programming Concepts & Technology		3		3
2.580	Application Programs		3		3
2.516	Introduction to Business Statistics		3		3
	*Data Processing Field Project			8	
2.585	Management Decision Simulation			3	3
	General Education Electives	3	3	3	3
		15	15	14	

*See course description.

ENVIRONMENTAL TECHNOLOGY DIVISION

PROGRAM DESCRIPTION AND OBJECTIVES

The environmental curriculum is designed to train competent technicians capable of working for private industry and governmental agencies. Trained personnel must be able to work and communicate with engineers, research scientists, administrative personnel and the general public. The courses are structured to provide a firm foundation in the basic sciences of chemistry, physics, biological science and technical mathematics. Specialized instruction includes the area of industrial microbiology, sanitation engineering and atmospheric science. Completion of this program leads to the Associate Degree in Environmental Technology.

CURRICULUM

FRESHMAN YEAR

COURSE NO.	COURSE TITLE	CREDITS F	W	S
Mth 95	Intermediate Algebra		4	
1.101, 1.104	Communication Skills I, II	3	3	
1.112	Technical Report Writing			3
1.110	Elements of Algebra	3		
CH 101, 102	General Chemistry	3	3	
6.101, 6.102	Intro to Environmental Tech I, II	3	3	
6.120	Principles of Ecology	3		
Bi 101	General Biology			4
1.606	Intro to Psychology and Human Relations			3
1.505	Employer-Employee Relations		3	
1.124	*American Institutions			3
HE 250	Personal Health	2		
PE 190	Physical Education	1	1	1
6.205	Seminar			2
		18	17	16

OPTION: ENVIRONMENTAL TECHNICIAN

SOPHOMORE

COURSE NO.	COURSE TITLE	CREDITS F	W	S
6.235, 6.236	Practical Physics & Hydraulics I & II		4	4
6.226, 6.227, 6.228	Air & Water Analysis I & II & III	4	4	4
6.200	Solid Wastes Disposal	3		
6.216, 6.217, 6.218	Principles of Treatment for Air, Water and Solid Waste I, II, III	4	4	4
6.240, 6.241, 6.242	Air Pollution Control I, II, III	2	2	2
6.220, 6.221	Instrumentation and Controls I, II		3	3
6.115	Microbiology for Environmental Control	4		
		17	17	17

OPTION: PUBLIC HEALTH AND SANITATION TECHNICIAN

SOPHOMORE

COURSE NO.	COURSE TITLE	CREDITS F	W	S
6.235	Practical Physics & Hydraulics I & II		4	4
6.244, 6.245, 6.246	Community Health & Sanitation I, II, III	4	4	4
6.115	Microbiology for Environmental Control	4		
4.101, 4.105	Drafting and Blueprint I, II	2	2	
6.250	Plumbing & Domestic Sewage Disposal Systems			4
6.226	Air and Water Analysis	4		
6.260	Food and Milk Sanitation		4	
6.200	Solid Wastes Disposal	3		
6.265	Swimming Pool Sanitation		3	
6.255	Public Health Administration and Sanitary Codes			3
6.270	Rodent and Vector Control Methods			3
		17	17	18

INDUSTRIAL DIVISION

APPRENTICESHIP

The Apprenticeship Program provides instruction in manipulative skills and technical or theoretical knowledge needed for competent performance in skilled occupations. The enrolled apprentice is employed as a learner of the skills of a trade through on-the-job work experience while related information is obtained in the classroom. New procedures for entrance into this program are regulated by Federal and State laws. A local trade committee consisting of labor and management assists the college with the instructional requirements.

Basic requirements for entrance in apprenticeship are:

1. Generally 16 years of age, preferably 18.
2. Good health and physical fitness for the trade.
3. High school graduation preferred.
4. Completion of aptitude test through the Oregon State Employment Office.
5. Willingness to work, study and attend classes.
6. Ability to maintain proper conduct in the school and on the job.
7. Successful completion of a probationary period of employment.
8. Acceptance after interview by the local joint apprenticeship committee.

Upon acceptance as an apprentice, the applicant enters into a contractual agreement with the local trade committee, the employer and the Oregon State Bureau of Labor. He becomes a paid employee, working to learn the trade through a combination of on-the-job experience and participation in related classes. Progress of the apprentice is reviewed each six months and the apprentice is re-rated accordingly.

COURSE NO.	COURSE TITLE	CREDITS F	W	S	Hrs/Wk
4.165	Automotive Body and Fender I	6			14
4.166, 4.167	Automotive Body and Fender II, III		10	10	19
4.100	Blueprint Reading & Sketching	2			2
4.108	Industrial Safety	2			2
4.151	Welding I	3			5
4.145	Industrial Math		3		3
1.101	Communication Skills	3			3
PE 190	Physical Education	1	1	1	3
4.168	Estimating & Shop Management		3		5
	Electives	1		5	1-8
		18	17	16	

SUGGESTED ELECTIVES:

9.506	Human Relations
1.124	American Institutions
3.397	Automotive Metal Work I
3.392	Chassis II

AUTOMOTIVE MECHANICS

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

COURSE NO.	COURSE TITLE	CREDITS F	W	S	Hrs/Wk
3.334	Internal Combustion Engines	6			12
3.335	Automotive Electricity**		6		12
3.308	Fundamentals of Auto Electricity	3			3
4.100	Blueprint Reading & Sketching	2			4
4.151, 4.152	Welding I & II	3	3		5
3.370	Automotive Brakes			3	6
3.350	Selling Principles and Techniques			3	5
3.324	Tune-up and Diagnosis			3	6
4.145, 4.146	Industrial Math I, II		3	3	3
3.295	Hydraulics and Pneumatics			3	6
PE 190	Physical Education	1	1	1	3
1.101	Communication Skills I	3			
4.130	Machine Processes		3		5
3.364	Fuels and Carburetion **		3		6
		18	19	16	

**Prerequisite to Tune-up and Diagnosis 3.324

SOPHOMORE YEAR

COURSE NO.	COURSE TITLE	CREDITS F	W	S	Hrs/Wk
3.290	Chassis I	3			6
3.292	Chassis II		3		6
3.278	Transmissions I	3			6
3.280	Transmissions II[1]		3		6
3.360	Auto Machine Shop[1]	3			6
3.329	Auto Repair Practices I[2]		3		7
3.331	Auto Repair Practices II[2]			3	7
3.332	Auto Service Management	2			2
3.375	Heat Exchanges & Air Control[1]			3	6
3.425	Employment Search Techniques			1	1
1.500	Employer-Employee Relations			3	3
HE 250	Personal Health			2	2
4.300	Practical Physics I		4		5
4.302	Practical Physics II			4	5
1.104	Communication Skills II		3		3
1.606	Introduction to Psychology	3			3
	Elective	3			5
		17	16	16	

[1]Second year or trade oriented students only
[2]Taken in sequence upon completion of all other mechancis courses

DRAFTING TECHNOLOGY

The 2-year Drafting Technology program is designed to provide a student with experiences that will allow him to learn the basic attitudes, skills, habits, knowledge and understanding necessary to successful entry into the Drafting Occupations. An Associate in Science Degree will be awarded those who successfully complete the two year program.

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

DRAFTING TECHNOLOGY

FRESHMAN YEAR

COURSE NO.	COURSE TITLE	CREDITS F	W	S	Hrs/Wk
4.110	Drafting I	3			7
4.109	Technical Sketching	1			3
4.127	Industrial Practices	3			5
6.337	Slide Rule	1			3
4.145, 4.146	Industrial Math I, II	3	3		3
1.101, 1.104	Communication Skills I, II	3	3		3
4.111	Drafting II		3		7
9.053	Drafting Procedures		2		2
4.300, 4.302	Practical Physics		4	4	5
4.112	Drafting III			3	7
4.148	Practical Descriptive Geometry			2	4
4.147	Industrial Math III			4	5
9.255	Commercial Art			2	4
PE 109	Physical Education	1	1	1	3
		15	16	16	

DRAFTING TECHNOLOGY

SOPHOMORE YEAR

COURSE NO.	COURSE TITLE	CREDITS F	W	S	Hrs/Wk
4.119	Machine Drafting	4			8
6.505	Statics	3			3
4.126	Mechanical Design Principles	2			2
2.509	Introduction to Data Processing	4			5
1.124	American Institutions	3			3
4.114	Architectural Drafting		4		8
4.116	Architectural Planning		4		8
4.115	Presentation Drawing		2		4
4.122	Strength of Materials		3		3
6.509	Human Factors in Design			2	2
4.125	Project Drafting			3	7
4.123	Technical Illustration			3	7
4.121	Electronics Drafting			2	4
1.500	Employment Relations			3	3
3.425	Employment Search Techniques			1	1
HE 250	Personal Health			2	2
	Electives		2		
		16	15	16	

Total 94 credits

MACHINE TOOL DIVISION

Plans calling for the implementation of a Machine Tool curriculum are currently underway. This program is expected to start in September 1971.

METALLURGICAL TECHNOLOGY

The Metallurgy program presents information regarding the extraction and purification of metals; the subsequent alloying or combining, treatment and fabrication of those metals; and the examination, analysis and testing of metals.

Metallurgical theory as presented deals with the internal structure of metals, the influence of structure on properties, and the influence of alloying materials and heat treatment on structures.

Satisfactory completion of the requirements of the program will lead to the Associate in Science Degree. During the 1971-72 school year, only the Freshman year of the program will be offered.

METALLURGICAL TECHNOLOGY

CURRICULUM

COURSE NO.	COURSE TITLE	CREDITS F	W	S	Hrs/Wk
4.101	Drafting & Blueprint I	2			4
6.293	Introduction to Metallurgy	3			5
6.294	Process Metallurgy		3		3
6.276	Physical Metallurgy			3	3
4.151	Welding I			3	5
CH 101, 102, 103	General Chemistry	3	3	3	5
4.302, 4.304	Practical Physics	4	4	4	5
1.110	Elements of Algebra	3			4
Mth 95	Intermediate Algebra		4		4
4.120	Fundamentals of Specification			3	5
1.124	American Institutions		3		3
PE 190	Physical Education	1	1	1	1
		16	18	17	

METALLURGICAL TECHNOLOGY

SOPHOMORE YEAR

COURSE NO.	COURSE TITLE	CREDITS F	W	S	Hrs/Wk
6.281	Non-Destructive Testing I		3		3
9.500	Elements of Supervision			3	3
3.462	Industrial Electricity	3			5
4.108	Industrial Safety			2	2
4.320	Analytical Chemistry	3			5
4.161, 4.162, 4.163	Materials Testing I, II & III	2	2	2	4
3.425	Employment Search Technique			1	1
4.127	Industrial Practices I	3			5
1.101, 1.104	Communication Skills I, II	3	3		3
6.298	Metallography			3	3
6.282	Non-Destructive Testing II			3	3
4.130	Machine Processes		3		5
HE 250	Personal Health	2			2
	Technical Elective		3	3	3
		16	14	17	

TOTAL: 97 Credits

WELDING

The one year welding certificate program can be completed in three 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 in fabrication, maintenance or job shops.

A certificate will be issued upon completion of this program.

FALL TERM

COURSE NO.	COURSE TITLE	CREDITS F	W	S	Hrs/Wk
4.242	Basic Oxyacetylene Welding	4			8
4.240	Basic Arch Welding	6			14
4.100	Blueprint Reading and Sketching	2			4
4.145	Industrial Math I	3			3
4.108	Industrial Safety	2			2
		17			

WINTER TERM

4.243	Intermediate Oxyacetylene Welding	4	8
4.241	Intermediate Arch Welding	6	14
4.245	Layout Procedures for Welding	3	5
4.146	Industrial Math II	3	3
		16	

SPRING TERM

4.250	Advanced Oxyacetylene Welding	4	8
4.246	Advanced Arc Welding	6	14
3.444	Metallurgy	4	6
	Elective	3	3
		17	

SUGGESTED ELECTIVES

1.500	Employer-Employee Relations
4.153	Welding Seminar

OCCUPATIONAL SERVICES DIVISION

FIRE SCIENCE

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

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

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

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

FIRE PROTECTION TECHNOLOGY

FRESHMAN YEAR

COURSE NO.	COURSE TITLE	CREDITS F	W	S	Hrs/Wk
1.101, 1.104	Communication Skills I, II	3	3		3
4.145, 4.146	Industrial Math I, II	3	3		3
5.254	Introduction to Fire Protection	3			3
5.253	Fire Apparatus & Equipment	3			3
4.100	Blueprint Reading & Sketching	2			4
5.250	Fire Fighting Skills I		3		5
5.287, 5.288	Physics, Fire Science I, II		3	3	3
5.255	Rescue & Emergency Care for Fire Science		3		3
5.251	Fire Fighting Skills II			3	5
1.606	Introduction to Psychology & Human Relations			3	3
5.264	Building Const. for Fire Prevention			3	5
HE 250	Personal Health			3	3
PE 190	Physical Education*	1	1	1	3
		15	16	16	

*Not required for In Service Program

SOPHOMORE YEAR

COURSE NO.	COURSE TITLE	CREDITS F	W	S	Hrs/Wk
5.272	Fire Protection Systems	3			5
5.263	Hydraulics & Pump Operation	3			5
9.500	Elements of Supervision	3			3
5.262	Fundamentals of Fire Prevention		3		5
5.265	Fire Dept. Organization & Management		3		3
5.240	Technical Report Writing			3	3
5.260, 5.261	Hazardous Materials I, II		3	3	3
5.273	Fire Investigation			3	3
1.124	American Institutions	3			3
	Electives	3	6	6	
		15	15	15	

SUGGESTED ELECTIVES

FIRE PREVENTION ELECTIVES		CREDITS
5.282	Codes and Ordinances	3
5.270	Fire Records & Reports	3
5.285	Legal Aspects of Fire Protection and Prevention	3
1.524	Applied Economics	3

FIRE SUPPRESSION ELECTIVES		CREDITS
5.274	Fire Fighting Tactics & Strategy	3
5.258	Fire Company Organization and Station Assignments	3
5.252	Fire Fighting Skills III	3
5.269	Water Distribution Systems	3
5.267	Fire Department Communications and Alert Systems	3

INSURANCE RISK INSPECTION ELECTIVES		CREDITS
1.524	Applied Economics	3
5.282	Codes and Ordinances	3
5.266	Fire Insurance Rating and Grading	3
5.269	Water Distribution Systems	3
4.108	Industrial Safety	2

LAW ENFORCEMENT

Plans calling for the implementation of both a two year transfer program and a two year occupational program in Law Enforcement are currently underway. These programs are expected to start in September 1971.

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 elective for a Supervisory Certificate; another requires the completion of ten approved courses plus four electives for an Advanced Supervisory Certificate. The third allows the student in Supervision to graduate with the Associate Degree. These programs are described below. Some credit may be allowed for supervision experience.

CERTIFICATE IN SUPERVISION (18 quarter credits)

		CREDITS
9.500	Elements of Supervision	3
9.501	Written Communications for Supervisors	3
9.502	Basic Psychology for Supervisors	3
9.504	Developing Employees through Training	3
	Elective (1 course from List A, following page).	3
	Elective (1 course from Lists A or B).	3

CERTIFICATE IN ADVANCED SUPERVISOR DEVELOPMENT
(45 quarter credits)

9.500	Elements of Supervision	3
9.501	Written Communications for Supervisors	3
9.502	Basic Psychology for Supervisors	3
9.503	Oral Communications for Supervisors	3
9.504	Developing Employees through Training	3
9.506	Human Relations	3
9.508	Labor-Management Relations	3
9.509	Industrial Economics	3
	Occupational Courses 1 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.	6

ASSOCIATE IN SCIENCE DEGREE* (90 quarter hours)

9.500	Elements of Supervision	3
9.502	Basic Psychology for Supervisors	3
9.504	Developing Employees through Training	3
9.506	Human Relations	3
9.508	Labor-Management Relations	3
9.512	Methods Improvement for Supervisors	3
9.514	Cost Control for Supervisors	3
	Two courses from List A	6
	Written Communications	3
	Oral Communications	3
	OCCUPATIONAL COURSES	15

*(15 credits with at least one sequence of three courses in a specific field)

ELECTIVE COURSES

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

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

LIST A (Supervisory Development)

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

LIST B (General Education)

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

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

LOWER DIVISION TRANSFER PROGRAMS

Linn-Benton Community College offers a comprehensive program of Lower Division courses leading to an Associate Degree which is transferable to Oregon's institutions of higher education. A student will in general be able to complete the first two years of a four year degree program at L.B.C.C. However, students are encouraged to discuss their specific plans with the counseling staff.

Transferable courses are available in the following areas:

Art
Business
Education
Law Enforcement
Literature – Writing
Math
Music
Philosophy
Science (Biology, Physical Science, Physics, Chemistry, etc.)
Secretarial Science
Social Science

CONTINUING EDUCATION

ADULT EDUCATION

PHILOSOPHY

The term "Adult Education" represents many areas of COMMUNITY EDUCATION. However, for purposes of identification Adult Education refers to those classes not considered College Transfer or Credit classes.

Many courses develop through Adult Education and evolve into a meaningful pattern or cluster of courses representing an occupational need. These soon become an Occupational Credit Program.

The broad view of Adult Education represents the need of the community in personal improvement. These courses may be in the form of occupational extension, occupational diversion or recreation, cultural betterment, high school completion and many other areas too difficult to classify.

The courses are designed to meet the need of the individuals who progress at their own rate, generally on a non-graded basis. There may be a broad range of abilities within each class. Instructors are chosen for their teaching skills and experience in the trade or field.

Classes will be scheduled any time of the day or night providing there are twelve or more interested students and that facilities and a suitable instructor are available.

Class schedules are available prior to the start of each term. The basic program is similar from term to term, but with some changes from the previous terms based on expressions from interested citizens.

REGISTRATION

REGISTRATION will be completed in the classroom, usually by the second week of class.

TUITION is based on 30 hours of instruction for $14.00; however, additional fees may be charged as a laboratory fee for materials and supplies.

INFORMATION regarding specific classes, call 926-6035.

COURSE OFFERINGS

AGRICULTURE course offerings will be directed primarily to the interest of specialized groups. Examples are commercial farmers, their families, employees, rural residents and their families. Courses will be offered in a local community if twelve or more persons enroll and if an instructor is available. Suggested courses are: farm accounting, ornamental horticulture, livestock health problems, tractor maintenance, and soils and fertilizers. Courses in welding (arc, acetylene, and heliarc) will be offered in local communities if facilities, equipment and instructors are available. Other courses will be offered on request of people interested in a specialized agricultural problem.

CULTURAL IMPROVEMENT (non credit) classes are offered in the area of arts such as oil painting, water color painting, sketching and drawing, ceramics, metalcraft and enameling, jewelry making, and calligraphy. There are also language classes such as Spanish and French, and Music and Art Appreciation classes.

HOMEMAKING classes are designed to aid the homemaker in improving the conditions in the home. Sewing classes which are offered include Bishop Sewing I, II, and III, Tailoring, Flat Pattern Design, Sewing Knit and Stretch Fabrics, and others as requested. Other classes offered may include Interior Decorating, Upholstery, Home Landscaping, Home Management, Knitting, Cake Decorating, Furniture Construction and Refinishing, etc. There are no special admission requirements for these classes, though some courses will need to be taken in their proper sequence.

OFFICE OCCUPATIONS classes are offered as non-credit classes and designed to improve a person's skills in occupation or to provide an opportunity to learn new skills related to the occupation. Many of the students will enroll to increase their skill or speed so they may attain a higher Civil Service rating. This type of class will include Typing I and II, Intermediate and Advanced Typing. Beginning and Advanced Shorthand, Bookkeeping, Briefhand, Office Machines, Office Practice, and many others related to the clerical field.

RECREATION classes are conducted throughout the area of Linn-Benton Community College and vary within each city depending entirely upon coordination with the city recreation program. Classes are generally limited to those specific classes where instruction is the most important part of the class. These classes may be courses like Boating Safety, Fishing Techniques, Fly Tying, Bridge and Golf.

ADULT BASIC EDUCATION

Adult Basic Education classes will be held throughout the Community College District whenever it is determined that there is a need.

These classes will be free to the participants, and will consist largely of basic instruction in reading, writing, and arithmetic.

HIGH SCHOOL COMPLETION

HIGH SCHOOL CONTINUATION classes are offered throughout the area in coordination with the various high school programs. These classes are designed as night classes for students presently enrolled in a regular high school program. The purpose of these classes is to provide more instruction in a specific course so that the student may bring up his grade to a satisfactory level for high school completion. These classes are **not** designed as a full high school semester but as a continuation course through which students can make up high school grades.

G.E.D. The General Educational Development test is given at the Linn-Benton Community College Counseling Center.

G.E.D. Test Preparation Adult Education classes are offered in addition to counseling before and after completion of the Equivalency test.

Transfer lower division as well as vocational-technical and occupational courses are offered both on campus and other locations throughout the college district.

REGISTRATION will be completed in the classroom or at the Registration Office on campus, depending upon location of class. Preregistration can be accomplished at the Registration Office on campus. Tuition and fees are based on the Colleges established schedule per credit hour or term.

For specific information concerning class location and schedules; call 926-6035.

For information regarding registration and curriculum; call 926-6091.

Course Descriptions

COURSE DESCRIPTIONS

8.100 Survey of Agriculture **1 class hr/wk 1 credit**

Provides information on the total grain, feed, seed and farm supply industry, dealing with historical factors, trends and industry problems. Students will become acquainted with the function of the total off-farm technology industry.

8.120 Seed Technology **3 class hrs/wk 3 credits**

Laws and regulations governing the seed industry and seed certification programs. In addition, course emphasis is placed on weed and crop seed identification and correlation with plant identification.

8.121 Seed Cleaning **6 lab hrs/wk 3 credits**

A comprehensive course in seed cleaning, grain testing and grading. The course is organized around practical experiences in actual seed plant operations.

8.125 Soils I **3 class hrs/wk 3 credits**

This is a basic course in soil science designed to provide necessary background for work in the fertilizer department of the agriculture supply center, and directly supports the fertilizers and chemicals option. Included is instruction leading to understanding of soil classification and crop adaptability, productivity characteristics of soil, environmental factors, plant nutrients, both macro and micro, liming and soil tests and interpretation.

8.126 Soils II **3 class hrs/wk 3 credits**

Included in the second phase of soils instruction are units on fertilizer requirements, soil moisture and plant growth, fertilizers of the soil, soil microorganisms the nature and properties of organic matter, sources of raw materials, and use of micronutrients.

8.127 Soils III **3 class hrs/wk 3 credits**

Third course 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. Fertilizer recommendations, methods of application, loss of fertilizer and storage and handling.

8.130 Agriculture Chemicals **3 class - 3 lab hrs/wk 4 credits**

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

8.135 Turf Management I **2 class hrs/wk 2 credits**

Grass identification and maintenance practices for the various species. Disease and fungi identification, prevention and control. Seed laws regarding marketing. Weed identification and corrective practices. Use of weeds as indicators in turf. Thatch and its control. Fertilizers, their role in management and cost computation. Insects and other pests, identification and control. Turf installation and establishment.

8.136 Turf Management II **1 class - 3 lab hrs/wk 2 credits**

Continuation of Turf Management I.

8.138 Irrigation and Drainage **3 class hrs/wk 3 credits**

When, why, how much irrigation. Use of flow charts and calculators. System design, pipe selection and size. Sprinkler selection and spacing. Pumps and power sources. Hydraulic principles, drainage systems.

8.140 Landscape Design **2, 3-hr labs/wk 2 credits**

Basic layout and design, site utilization and orientation. Landscape contours and grading. Trees, shrubs, floral selection, utilization and fertilization.

8.145 Feeds and Feeding **3 class hrs/wk 3 credits**

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.

8.165 Crops **3 class hrs/wk 3 credits**

Deals with management practices of field crops with special emphasis on the grass seed family. Units will be highly related to soils and plant growth factors, and will include environmental factors affecting crop selections; soil preparation and seeding; fertilization; weed, disease and insect control; and modern harvesting techniques.

8.180 Warehouse Management **1 class hr/wk 1 credit**

The course will deal with procedural aspects of warehouse and elevator operation, state and federal licensing requirements, warehouse receipts, inventory control, safety, fire prevention and sanitation.

8.188 AG Equipment Maintenance **1 class - 3 lab hrs/wk 2 credits**

Small engine repair, general maintenance including bearings, belts and pulleys. Practical experience in acetylene and arc welding is gained during the course.

8.230 Work Experience (Agriculture) **Max 3 hrs 1 yr certificate**
Max 9 hrs Assoc. Degree Program

Employment in positions providing practical experience in the various aspects of agriculture suited as nearly as possible to the student's wants and capabilities. Supervised by employer and college coordinator.

9.812 Seed Cleaning **3 class hrs/wk 8 wks 10 lab hrs 3 credits**

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

9.813 Agriculture Chemicals **3 class hrs/wk 3 credits**

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

9.814 Soils and Fertilizers **3 class hrs/wk 3 credits**

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

9.822 Artificial Insemination **3 class hrs/wk 8 wks**
10 lab hrs 3 credits

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

ASSOCIATE DEGREE NURSING

5.711 Fundamentals of Nursing I **3 class, 6 lab hrs/wk 5 credits**

Introduction to the role of the nurse in meeting the needs common to all patients of all ages. Opportunity is given the student to learn the knowledge, skills and behaviors necessary to the practitioner of nursing based on principles of the physical, biological, and psycho-social sciences. Lecture, independent learning tasks, demonstration, audio-visual aids and discussion are used in the classroom. Provision is made for supervised practice in the clinical area. Pre-and post-clinical conferences orient the nursing student to evaluate the results of planned patient-centered care.

First Quarter. Tutorial lab periods are offered in addition to published schedules.

Prerequisite or concurrent: Nursing Seminar I, Psy 201, Anatomy-Physiology I 4.201, Physics 4.215, and permission of the Nursing Division.

5.712 Fundamentals of Nursing II **3 class, 6 lab hrs/wk 5 credits**

Continuation of Nursing 5.711. Additional fundamental nursing knowledge and techniques. Emphasis on common patient problems of physiologic nature. Supervised practice in clinical areas. Patient-centered pre-and post-clinical conferences, with continued emphasis on nursing care plans and scientific principles underlying nursing care.

Second Quarter. Tutorial lab periods are offered in addition to published schedules.

Prerequisite: Nursing 5.711, Anatomy-Physiology I 4.201.

Concurrent or prerequisite: Anatomy-Physiology II 4.202, Nutrition I, 4.211, Psychology 202, Nursing Seminar II.

5.713 Parental-Child Nursing **5 class, 9 lab hrs/wk 8 credits**

This course deals with the physiological, psycho-social, and spiritual factors involved in maternal and child care. The family-centered approach is used. The family unit serves as a framework for the study of the nursing care of mothers during the maternity cycle and of infants and children from birth through adolescence. The normal aspects of maternal and child care are stressed. Adaptations are made to include common complications occurring during the maternity cycle, as well as illnesses occurring commonly in particular age groups. The study of drugs commonly used in the care of maternity patients, infants and children is included in the course.

In the clinical laboratory, students have the opportunity to care for maternity patients, infants, and children under supervision. Pre-and post-clinical conferences are held in conjunction with all laboratory experiences. Provision is made for laboratory experiences to include a variety of agencies in the community which render assistance and care to mothers, infants, children, and families.

Third Quarter. Tutorial lab periods are offered in addition to published schedules.

Prerequisite: Nursing 5.712, Concurrent or prerequisite: Microbiology 4.207, Sociology 204, Nursing Seminar III.

5.726 Nursing Seminar I: Nursing and Contemporary Society

1 class hr/wk 1 credit

The nursing role defined, based on current theories pertaining to the nature of health and disease. The reciprocal influences between society and nursing are identified as they relate to biological, sociological, psychological and therapeutic milieu. Content is correlated with Nursing 5.711.

5.727 Nursing Seminar II: Nursing and Contemporary Society

1 class hr/wk 1 credit

Continuation of Nursing Seminar 5.726 with content correlating with Nursing 5.712.

5.728 Nursing Seminar III: Nursing and Contemporary Society

1 class hr/wk 1 credit

Continuation of Nursing Seminar 5.727 with content relating to Nursing 5.713.

5.721 Nursing in Physical-Mental Illness I **5 class, 12 lab hr/wk 9 credits**

This course is designed to provide a broad background of information which will enable the nursing student to further develop the fundamental nursing knowledge and skills in order that he or she can provide nursing care designed to meet each patient's particular needs.

Through the study of the major areas of illness in the United States and consideration of the scope, prevention, diagnosis, treatment, control, and psycho-social aspects of each, the nursing student will be equipped to recognize and meet nursing problems she encounters.

Deviations from normal growth and development which pre-dispose to illness are presented as are the psychological, psychosomatic, cultural, and socio-economic factors which cause, complicate, or affect the treatment. Consideration of the rehabilitative aspect of nursing care is also given and includes providing knowledge about the effective use of available community agencies.

Through class discussion, use of multi-media materials, and selected, guided laboratory and field experiences, the student will develop skill in recognizing symptoms of disease, understanding limitations imposed by illness, and providing nursing care designed to meet the individual needs of patients.

Fourth Quarter. Tutorial lab periods are offered in addition to published schedules.

Prerequisite: Nursing 5.713. Concurrent or prerequisite: Nutrition II 4.212.

5.722 Nursing in Physical-Mental Illness II **6 class, 12 lab hr/wk**
10 credits

Continuation of Nursing 5.721.

Fifth Quarter. Tutorial lab periods are offered in addition to published schedules.

Prerequisite: Nursing 5.721.

5.723 Nursing in Physical-Mental Illness III **5 class, 9 lab hr/wk**
8 credits

This course stresses the philosophy that the nurse-patient relationship is basic to all nursing care. The course of study begins with basic concepts of personality and behavior that the nurse may utilize in all areas of nursing and progresses to a deeper inspection of psychological processes that will help the student understand the extreme mental health deviations from "normal".

The material is so arranged that each concept, as it is introduced, creates a background; nurse-patient relationships; milieu therapy and related nursing techniques; psychodynamic concepts of the human mind and personality development; neurotic and psychotic reactions; psychiatric treatment measures; and team relationships. The program offers experience with social workers, collaborative psychiatrics, psychologists and others, and provides planned learning experiences in other health agencies as well as general hospital settings.

Sixth Quarter. Tutorial lab periods are offered in addition to published schedules.

Prerequisite: Nursing 5.722. Concurrent: Nursing Seminar IV 5.729.

5.729 Nursing Seminar IV: Nursing and Contemporary Society **1 class hr/wk 1 credit**

Continuation of Nursing Seminar 5.728 with content correlated with Nursing 5.723.

DENTAL ASSISTANT

5.445 Pre-Clinical Orientation **3 class hrs/wk 1 credit**

An introduction to the practice of dentistry, dental terminology and the various aspects concerned with the profession and the Dental Assistant.

5.484 Dental Materials I **2 class hrs/wk 1 credit**

An introduction to dental materials, their composites and properties.
Prerequisite: Admittance to the Dental Assistant Program.

5.485 Dental Materials II **2 class hrs/wk 1 credit**

A continuation of dental materials, their composites and properties. Complete materials review.
Prerequisite: Dental Materials I.

5.471 Laboratory Procedure I **9 class hrs/wk 3 credits**

An introduction to the practical experience in handling and manipulating dental materials and the use of dental laboratory equipment, and dental prosthesis.
Prerequisite: Admittance to Dental Assistant Program.

5.472 Laboratory Procedures II **9 class hrs/wk 3 credits**

A continuation of practical dental laboratory procedure and experience. A review of all laboratory procedures I and equipment use.
Prerequisite: Laboratory Procedures I.

5.473 Laboratory Procedures III **2 class hrs/wk 1 credit**

The practical application of all dental laboratory procedures commonly used in the dental office.
Prerequisite: Laboratory II.

5.461 Dental Roentgenology I **2 class hrs/wk 2 credits**

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 periaspical and bitewing film.

5.462 Dental Roentgenology II **2 class hrs/wk 1 credit**

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

5.463 Dental Roentgenology III **2 class hrs/wk 1 credit**

Working procedure dealing with the difficult patient. A study of pathological conditions. Review in entirety in preparation for Roentgenographic certification by the OREGON State Board of Dental Examiners.
Prerequisite: Dental Roentgenology II.

5.451 Dental Sciences I **6 class hrs/wk 5 credits**

An introduction to the basic sciences, including the history of medicine, elementary biology, human anatomy and physiology. Anatomy of the head and neck, nomenclature and cavity classification.
Prerequisite: Admission to Dental Assistants Program.

5.452 Dental Sciences II **4 class hrs/wk 3 credits**

A basic study of cells, tissues, microbiology, bacteriology, physiology, and the importance of these as related to dentistry. Drugs common to the dental office and dental nutrition.
Prerequisite: Dental Science I.

5.453 Dental Science III **1 class hr/wk 1 credit**

A study of common pathological diseases, injured and normal tissues, developmental anamalies.
Prerequisite: Dental Science II.

5.491 Dental Office Management I **3 class hrs/wk 2 credits**

Basic office principles as related to their application in a dental office. Patient reception, communication, and telephone techniques, appointment scheduling, office record maintenance, financial arrangement and coordination, and supply control.

5.492 Dental Office Management II **1 class hr/wk 1 credit**

A review of Dental Office Management I; jurisprudence, and acquaintance with good letter writing forms and types of correspondence related to the dental office.
Prerequisite: Dental Office Management I.

5.494 Clinical Practice I **4 class hrs/wk 3 credits**

An introduction to practical office procedures including instrumentation, tray set-ups, rubber dam and restorative procedures. Equipment and its care, patient seating and dismissal and general first aid.
Prerequisite: Pre-Clinical Orientation 5.445.

5.495 Clinical Practice II **3 class hrs/wk 3 credits**

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

5.505 Dental Specialties **1 class hr/wk 3 credits**

Specialist in the dental profession to acquaint the student with all types of dental specialization.

5.510 Office Practice **20 class hrs/wk 5 credits**

Students are assigned to ethical clinical practice for observation and practical application of dental assistant procedure. The student will be trained under proper supervision.

Prerequisite: Third term status.

ALLIED HEALTH

NURSING ASSISTANT

5.406 Nurses Assistant Lecture **5 class hrs/wk 5 credits**

Daily assignments are given using a required manual which serves as the text. Weekly quizzes are given to determine the students' understanding of the theory portion of the course.

5.407 Nurses Assistant Laboratory **25 lab hrs/wk 7 credits**

Clinical experience is provided first in a Nursing Arts Laboratory, with demonstrations of procedures by the instructor, and an opportunity for the student to practice procedures before she is assigned to do them on the hospital stations. Experience at the bedside of patients is provided under the supervision of the instructor, in the hospital and in nursing homes.

BUSINESS DIVISION

BA 101 Introduction to Business **4 class hrs/wk 4 credits**

A survey course in business with emphasis placed on organization, operation and management. It is intended to orient the student to the field of business and to help him determine his field of major concentration.

BA 211 Principles of Accounting I **3 class hrs/wk 3 credits**

Techniques of account construction and preparation of financial statements. Emphasis is an application of problems of recording, measuring income, purchasing, sales, inventories, special journals, and internal control of cash.

BA 212 Principles of Accounting II **3 class hrs/wk 3 credits**

Accounting systems and management control, concepts and principles of depreciation, merchandise inventory, evaluation, partnership and corporate accounting, capital stock, investments, dividends.

Prerequisite: BA 211 or consent of instructor.

BA 213 Principles of Accounting III **3 class hrs/wk 3 credits**

Control accounting for departments and branches, cost accounting for manufacturing plants, income taxes and their effect on business decisions, and analysis of financial statements.

Prerequisite: BA 212 or consent of instructor.

SS 112 Stenography II **5 class hrs/wk 3 credits**

Completion of shorthand theory and review of all principles. Development of ability to construct new outlines rapidly from dictation and to lay a solid foundation for further development of dictation and transcription skill.

BA 214 Business Communications **3 class hrs/wk 3 credits**

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

BA 217 Basic Accounting and Financial Analysis **3 class hrs/wk 3 credits**

A one-term terminal course designed for students not majoring in business. Introduction to the recording, summarization, presentation, and interpretation of accounting data. Emphasis on basic accounting principles and terminology, the accounting cycle, and analysis of financial reports.

BA 226 Business Law **3 class hrs/wk 3 credits**

The framework of the law as it affects the businessman, how the law operates, how it is enforced, and how to use the law in business. The origins of law, the relations of business to society and the law, evolution of business within the framework of the law, the historical development and present-day applications of the law of contracts.

BA 232 Introduction to Business Statistics **3 class hrs/wk 3 credits**

Modern business decision theory, and statistics as a tool for business decision making. Primary emphasis on statistical description (tables, charts, and frequency distributions), and the elements of probability; consideration also of modern data processing, index numbers and time series analysis (trend, cyclical, and seasonal adjustments) of business data.

SS 111 Stenography I **5 class hrs/wk 3 credits**

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

SS 113 Stenography III **5 class hrs/wk 3 credits**

Emphasis on further development of speed and accuracy in dictation and transcription. Intensive practice in refining shorthand skills and producing mailable letters.

SS 211 Applied Stenography **6 class hrs/wk 3 credits**

A thorough and extensive review of Gregg shorthand, advanced principles, phrases and short cuts, dictation covering vocabularies representative of various types of businesses, legal forms, newspapers, and magazine articles. Basic skills of office work are stressed.
Prerequisite: SS 113 or equivalent.

SS 212 Applied Stenography **6 class hrs/wk 3 credits**

A continuation of 211 with emphasis on speed, accuracy and secretarial standards.

SS 213 Applied Stenography **6 class hrs/wk 3 credits**

A continuation of SS 212 with emphasis on speed, accuracy and secretarial standards.

SS 121 Typing I **5 class hrs/wk 2 credits**

A beginning course in typing for those with no previous typing instruction. It covers the basic techniques of the touch system, speed and accuracy, manuscript writing, composition at the machine, tabulation, letter writing and centering. Individualized instruction prevails throughout the entire typing sequence. Students will be given the opportunity to advance at their own rate. No specific class times will be assigned. Specific course requirements are available to the students from the Business Division. (Offered all quarters).

SS 122 Typing II **5 class hrs/wk 2 credits**

Continued practice in the mastery of the keyboard with emphasis on speed, accuracy, and secretarial standards. Review and advanced work in manuscripts, business forms, rules that govern word division, correspondence, courtesies and similar typing techniques. Individualized instruction prevails throughout the entire typing sequence. Students will be given the opportunity to advance at their own rate. No specific class times will be assigned. Specific course requirements are available to the students from the Business Division. (Offered all quarters.)

Prerequisite: SS 121

SS 123 Typing III **5 class hrs/wk 2 credits**

Continued units on letter writing, business forms, manuscript, plus secretarial projects such as credit follow-up, sales promotion, financial analysis, conference arrangements, employment interviews, and promotion planning. Individualized instruction prevails throughout the entire typing sequence. Students will be given the opportunity to advance at their own rate. No specific class times will be assigned. Specific course requirements are available to the students from the Business Division. (Offered all quarters.)

Prerequisite: SS 122.

SS 124 Typing Skill Building **4 class hrs/wk 2 credits**

Special emphasis on speed and accuracy. Use of a wide variety of special drills to work on numbers and remedial techniques.

Prerequisite: Typing 123. Permission of Business Division required for enrollment.

2.748 Personal Development For The Career Women **3 class hrs/wk 2 credits**

A class that makes available to the prospective career woman information concerning self-improvement, appearance, attitude and general business etiquette. The course will include visual and vocal poise, figure control, good grooming techniques, wardrobe planning, employment procedures and interview techniques.

2.751 Personal Development For The Professional Manager

3 class hrs/wk 2 credits

A class designed to give prospective business managers information on professional procedures relating to business and office manners. The course will be structured to cover leadership techniques, attitudes, confidence in daily conversation, personal wardrobe, interview techniques and procedures for employment.

0.660 Personal Finance **3 class hrs/wk 3 credits**

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

2.110 Principles of Salesmanship **3 class hrs/wk 3 credits**

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

2.119 Business Management **3 class hrs/wk 3 credits**

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

2.131 Elements of Marketing **3 class hrs/wk 3 credits**

A general survey of the nature, significance, and scope of marketing. Emphasis will be placed upon the channels of distribution; the marketing of consumer, shopping, specialty and other goods; service marketing; middlemen, wholesaling, shopping and warehousing; standardization, grading and pricing; government regulations of completion.

2.134 Retail Merchandising **3 class hrs/wk 3 credits**

A general survey of the principles of efficient retail organization and management. Topics include location and layout, types of store organization, personnel management, credit and collections, store protection and other operating activities.

2.222 Financial Management **3 class hrs/wk 3 credits**

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

Prerequisite: Bookkeeping III or equivalent.

2.501 Typing I **5 class hrs/wk 2 credits**

A beginning course in typing for those with no previous typing instruction. It covers the basic techniques of the touch system, speed and accuracy, manuscript writing, composition at the machine, tabulation, letter writing, centering. Individualized instruction prevails throughout the entire typing sequence. Students will be given the opportunity to advance at their own rate. No specific class times will be assigned. Specific course requirements are available to the students from the Business Division. (Offered all quarters.)

2.502 Typing II **5 class hrs/wk 2 credits**

Continued practice in the mastery of the keyboard with emphasis on speed, accuracy, and secretarial standards. Review and advanced work in manuscripts, business forms, rules that govern word division, correspondence, courtesies and similar typing techniques. Individualized instruction prevails throughout the entire typing sequence. Students will be given the opportunity to advance at their own rate. No specific class times will be assigned. Specific course requirements are available to the students from the Business Division. (Offered all quarters.)

2.503 Typing III **5 class hrs/wk 2 credits**

Continued units on letter writing, business forms, manuscripts, plus secretarial projects such as credit follow-up sales promotion, financial analysis, conference arrangements, employment interviews and promotion planning.

Prerequisite: Typing 2.502. Individualized instruction prevails throughout the entire typing sequence. Students will be given the opportunity to advance at their own rate. No specific class time will be assigned. Specific course requirements are available to the students from the Business Division.

2.504 Typing Skill Building **4 class hrs/wk 2 credits**

Special emphasis on speed and accuracy. Use of a wide variety of special drills to work on numbers and remedial techniques.

Prerequisite: Typing 2.501. Permission of Business Division required for enrollment.

2.515 Business Mathematics **3 class hrs/wk 3 credits**

This course is designed to give a student the mathematical background needed for general business application. After a review of the fundamental processes including decimals and fractions, the student will be involved in such mathematical calculations as determining percentages, discounts, commission, markup, depreciation, and interest.

2.516 Introduction to Business Statistics **3 class hrs/wk 3 credits**

A statistical analysis of business and economic data used in controlling operation and in making sound business decisions. Special attention is given to assembling statistical data, statistical description, probability, sampling, time series analysis, index numbers, and tests of significance.
Prerequisite: One year of high school algebra, Mth 1.110 or consent of instructor.

2.518 Business Law **3 class hrs/wk 3 credits**

The legal environment of business and principles of contract law. An introduction to the study of law and business, legal reasoning and the evolutionary process of law. Emphasis is placed in the study of business agreements – their formation, operation, performance and discharge.

2.521 Office Machines **5 class hrs/wk 3 credits**

Instruction and operating experience on the ten-key adding machine, full keyboard adding machine, printing calculator and the rotary calculator.

2.522 Advanced Office Machines **5 class hrs/wk 3 credits**

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

2.528 Clerical Office Procedures **8 class hrs/wk 4 credits**

Instruction in telephone techniques, filing, duplicating machines, transcribing machines, and job interviewing. For five weeks, the students will be employed in a simulated office in the classroom, integrating all office skills and procedures.
Prerequisite: Typing II.

2.530 Bookkeeping I **5 class hrs/wk 3 credits**

Fundamental principles of double entry bookkeeping, general journals and ledgers, business forms, simple financial statements, and the completion of the bookkeeping cycle. Specific emphasis on cash receipts and payments, payroll accounting, purchases, sales, promissory notes, and inventories.

2.531 Bookkeeping II **5 class hrs/wk 3 credits**

A continuation of Bookkeeping I with an expansion of the bookkeeping cycle to include special journals, ledgers and business forms. A special emphasis will be placed on bookkeeping for a partnership.
Prerequisite: Bookkeeping I.

2.532 Bookkeeping III **5 class hrs/wk 3 credits**

A course in bookkeeping 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 bookkeeping for a corporation.

Prerequisite: Bookkeeping II.

2.541 Stenography I (Gregg) **5 class hrs/wk 3 credits**

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

2.542 Stenography II (Gregg) **5 class hrs/wk 3 credits**

Completion of shorthand theory and review of all principles. Development of ability to construct new outlines rapidly from dictation and to lay solid foundation for further development of dictation and transcription skill.

Prerequisite: Stenography I.

2.543 Stenography III (Gregg) **5 class hrs/wk 3 credits**

Emphasis on further development of speed and accuracy in dictation and transcription. Intensive practice in refining shorthand skills and in producing mailable letters.

Prerequisite: Stenography II.

2.541 Stenography I (Machine Shorthand) **5 class hrs/wk 3 credits**

Introduction to and training on the keyboard and theory of Touch Machine Shorthand with practical applications in sentence and paragraph dictation.

2.542 Stenography II (Machine Shorthand) **5 class hrs/wk 3 credits**

Completion of Touch Machine Shorthand theory. Development of ability to take dictation rapidly and the development of transcription skills.

Prerequisite: Stenography I (Machine Shorthand).

2.543 Stenography III (Machine Shorthand) **5 class hrs/wk 3 credits**

Emphasis on further development of speed and accuracy in dictation and transcription. Intensive practice in refining shorthand skills and in producing mailable letters.

Prerequisite: Stenography II (Machine Shorthand)

2.545 Applied Stenography I **6 class hrs/wk 3 credits**

A thorough and extensive review of Gregg Shorthand, advanced principles, phrases and short cuts, dictation covering vocabularies representative of various types of businesses, legal forms, newspapers, and magazine articles. Basic skills of office work are stressed.

Prerequisite: Steno 2.543 and Typing 2.503.

2.546 Applied Stenography II **6 class hrs/wk 3 credits**

A continuation of 2.545 with emphasis on speed, accuracy and secretarial standards.

2.547 Applied Stenography III **6 class hrs/wk 3 credits**

A continuation of 2.546 with emphasis on speed, accuracy and secretarial standards.

2.548 Business English **3 class hrs/wk 3 credits**

The analysis and composition of the principal types of present-day business letters and reports.

Prerequisites: Communication Skills I and Typing I.

2.613, 2.614, 2.615 On-the-Job Training (Secretarial)

16-20 hrs/wk 4 credits

Supervised employment in a secretarial field such as stenography, office management, records control, etc. The purpose of the employment is to provide a practical experience, related to the student's major field of interest. The employment portion of the course must equal at least 16 hours per week. A weekly seminar also is required.

Prerequisite: Consent of Business Division before registration.

2.710, 2.711, 2.712 On-the-Job Training (Business Management)

16 hrs/wk 4 credits

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 required.

Prerequisite: Consent of Business Division before registration.

2.631, 2.632, 2.633 Organizational Work Experience

12 hrs/wk 6 credits

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.

Prerequisites: Sophomore standing as a business major.

2.534 Cost Accounting **3 class hrs/wk 3 credits**

A course that relates theory with practical problems in the analysis and control of material, labor and overhead costs in manufacturing. Special emphasis is given to the job cost system, the process cost system, and the standard cost system.

Prerequisite: Bookkeeping III or Accounting III (Winter Quarter).

9.743 Income Tax Preparation **3 class hrs/wk 3 credits**

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

1.524 Applied Economics **3 class hrs/wk 3 credits**

The underlying principles by which business and industry are influenced. Production, income, management, prices, values, markets, money wastes, interests and profits are examples of subjects studied with illustrations of how they affect current business situations.

1.500 Employer-Employee Relations **3 class hrs/wk 3 credits**

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

2.536 Analysis of Financial Statements **3 class hrs/wk 3 credits**

A study of financial analysis involving financial statements, statements of audit, and reports commonly found in business operations.

Prerequisite: Bookkeeping III.

2.508 Keypunch Operation **2 credits**

Basic operation of various keypunch machines, and the development of a job-entry level skill on these machines. Students will be responsible for scheduling their time until the desired skill level is reached.

Prerequisite: Permission of Business Division. Introduction to Data Processing (2.509) is also recommended.

2.585 Management Decision Simulation **3 class hrs/wk 3 credits**

This course uses a sophisticated management simulation program which will enable the student to gain practical experience with the decision making process. Market, production, and financial environments are simulated by the computer to enable the student to move rapidly through what would normally take many years of time.

Prerequisite: Sophomore standing with a business background. Required for all Business Data Processing majors.

DATA PROCESSING

2.509 Introduction to Data Processing **3 class hrs/wk 3 credits**

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

2.558 Introduction to Programming **3 class hrs/wk 3 credits**

This course is intended for students who feel that they may wish to major in Business Data Processing in order to provide a first look at a senior level language. The language used will be SI/I for I.B.M./1130 Data Processing System. Programming problems are designed so that the student may receive actual experience in producing working programs. Open to all students and required for Business Data Processing majors. (Offered all quarters)

2.562 Micro-Language I **3 class, 2 lab hrs/wk 3 credits**

Students in this course will write programs in the 1130 system 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.

Prerequisites include introduction to Data Processing and Introduction to Programming. Required for all Business Data Processing majors. Offered Winter Quarter only.

2.565 Documentation Procedures **3 class hrs/wk 3 credits**

This course will stress the need for complete accurate documentation within the data processing function. Decision charting, job-flow system, flow-charting and program flow-charting will be presented with special emphasis on the latter. Should be taken concurrently with Micro-Programming I. Required for all Business Data Processing majors. Offered Winter Quarter only.

2.563 Micro-Language II **3 class, 2 lab hrs/wk 3 credits**

A continuation of the 1130 System Assembler language with emphasis placed on input/output macro-statements and disk-file utilization. Major emphasis will be placed on disk-file record structure and uses of disk-file storage techniques.

Prerequisites are Micro-Language I and Documentation Procedures. Required for all Business Data Processing majors.

2.566 Operating Systems Concepts **3 class hrs/wk 3 credits**

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

2.569 Macro-Language I **3 class, 2 lab hrs/wk 3 credits**

This course will introduce the I.B.M./1130 Report Program Generator language (RPG) Actual programs will be assigned and run in a true third generation environment. Emphasis will be on card oriented tasks and further usage of the I.B.M./1130 Monitor Job Control Language. Required for all Business Data Processing majors.

Prerequisites: Micro-Programming II and Operating Systems Concepts.

2.575 Systems and Procedures **3 class hrs/wk 3 credits**

A look at the roll of the data processing function within the 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 vs. Machine" environment will be stressed. Should be taken concurrently with Micro-Language II by all Business Data Processing majors, but is open to all students with a basic Business background.

2.570 Macro-Language II **3 class, 2 lab hrs/wk 3 credits**

A continuation of the I.B.M./1130 System RPG language with emphasis on the disk-file. Library cataloging procedures, record structure and development, and file data based systems will be considered. Prerequisite is Macro-Language I. Required for all Business Data Processing majors.

2.578 Programming Concepts and Technology **3 class hrs/wk 3 credits**

This course will acquaint the student with the development of language compilers such as COBOL, FORTRAN and BASIC and how a compiler works. It will also look at the systems architecture of several major manufacturers other than I.B.M. so that the student will have job-entry-knowledge in many different types of data processing environments.

Prerequisite is Macro-Language I and should be taken concurrently with Macro-Language II. Required for all Business Data Processing majors.

2.580 Application Programs **3 class hrs/wk 3 credits**

This course will look at several of the "canned-programs" provided by software manufacturers. Applications such as PERT, CPM, Linear programming, systems simulation, resource allocation, and mathematical regression analysis will be considered. Should be taken concurrently with Macro-Language II.

Prerequisite is Macro-Language I.

2.582 Special Study* **3 class hrs/wk 8 credits**

A course of instruction and practice of skills and techniques acquired in previous courses within the Business Data Processing curriculum. Individual selected projects of practical value 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

*Unscheduled lab and outside study and preparation time totaling a minimum of 192 hours.

CREATIVE ARTS DIVISION

Art 195 Basic Design **1 class, 2 lab hrs/wk 2 credits**

A general introduction to the design field through study of the basic art principles with emphasis on developing sound judgment, basic skills and individual creative growth.

Art 196 Basic Design **1 class, 2 lab hrs/wk 2 credits**

Continuation of study of the design field with emphasis on relationships between 2 and 3 dimensional space; further development of basic skills, individual growth and ability to analyze design problems.

Prerequisite: Art 195.

Art 197 Basic Design **1 class, 2 lab hrs/wk 2 credits**

Continuation of the study of the design field with emphasis toward the development of the individual designer. Experimentation encouraged.

Prerequisite: Art 196.

Art 201, 202, 203 Survey of the Visual Arts **3 class hrs/wk 3 credits**

Cultivation of understanding of the visual arts through the study of the elements of art, architecture, sculpture, drawing and print making, painting, industrial design, crafts.

Art 235 Jewelry and Metalsmithing I **1 class, 2 lab hrs/wk 2 credits**

Processes and techniques in designing, forming and fabricating non-ferrous metals as preparation for additional work in jewelry and metalsmithing.

Art 236 Jewelry and Metalsmithing II **1 class, 2 lab hrs/wk 2 credits**

Design, tools, and techniques of jewelry construction with semi- precious materials, silver, and other metals.

Art 237 Jewelry and Metalsmithing III **1 class, 2 lab hrs/wk 2 credits**

Skills and techniques involving hand processes of raising and forging using non-ferrous metals.

Art 255 Ceramics **2 class hrs/wk plus lab 2 credits**

Introduction to ceramics with emphasis on pottery. Instruction offered in hand construction, throwing, glazing, and firing. Laboratory hours to be arranged. Maximum credit, 6 hours.

Art 290 Painting **2 -3 credits**

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

Art 291 Drawing **1 - 3 credits**

Problems in still life, figure drawing expressive and landscape drawing. Studies in the use of different materials and techniques. One three-hour studio period for each hour of credit. Maximum credit 9 hours.

Art 292 Water Color **2 hours any term, max. 6 hrs**

The technique and use of water color, with special attention to its characteristics as a painting medium. Emphasis on landscape material.
Prerequisite: four hours of Art 291 Drawing.

Art 293 Elementary Sculpture **2 units 4 hrs/wk**

The course provides an understanding of some sculptural techniques and theories explored through the use of clay, plaster, wire, wood, plastics and casting materials and their relation to forms compatible with those materials and techniques.

9.255 Commercial Art **2 hrs 2 credits**

The course is designed to introduce the wide variety of methods and materials used by today's commercial artists, designers and illustrators. Students will be given practical applications of these methods and materials through their art assignments.

Mus 51 Basic Voice **1 hour any term, maximum 3 hours**

Classroom instruction for students ineligible for voice instruction at the level of Mus 190.

Mus 190 Performance Studies (Private Instruction).
1 hour any term, maximum, 6 hours

No more than six hours credit may be earned in Mus 190 and 290, singly or combined. Individual instruction.
Prerequisite: audition demonstrating acceptable level of competency.

Mus 197 Chorus **1 hour each, maximum 6 hours**

(No more than six hours credit may be earned in Mus 195, 196, 197, singly or combined).

Mus 201, 202, 203 Introduction to Music and Its Literature **3 hours each**

Cultivation of understanding and intelligent enjoyment of music through a study of its elements, forms, and historical styles.

Mus 290 Performance Studies (Private Instruction) **1 hour each, max. 3 hours**

(No more than six hours credit may be earned in Mus 190 and 290, singly or combined). Individual instruction.

Prerequisite: proficiency required for satisfactory completion of Mus 190.

ENVIRONMENTAL TECHNOLOGY DIVISION

6.101 Introduction to Environmental Control I **3 hrs/wk 3 credits**

An introduction course which surveys environmental problems. Topics include water, sewage, solid waste management, swimming pool sanitation, vector borne disease and environmental control.

6.102 Introduction to Environmental Control II **3 hrs/wk 3 credits**

Continuation of 6.101. Emphasis on the following topics: Industrial health and safety, radiological health, watershed sanitation, housing, food and mill production, environmental factors and chronic disease.

6.120 Principles of Ecology **3 hrs/wk 3 credits**

A study of the basic fundamental of ecology and some inter-relationship of man and his environment.

6.244 Community Health and Sanitation I **4 class hrs/wk 4 credits**

A course designed to acquaint the student with the structures, function and major problem in community health.

6.245 Community Health and Sanitation II **4 class hrs/wk 4 credits**

Continuation of 6.244. This portion dealing with the role of environmental sanitation is brought into its proper relationship to the total public health effort for the control of communicable disease.

6.246 Community Health and Sanitation III **4 class hrs/wk 4 credits**

Continuation of 6.244 and 6.245. This portion deals with sanitation surveys and practical field problems.

6.250 Plumbing and Domestic Sewage Disposal Systems **8 hrs/wk 4 credits**

The basic fundamentals of plumbing with emphasis of plumbing codes and inspections. The study of fundamentals of single dwelling sewage disposal systems.

6.260 Food and Milk Sanitation **4 class hrs/wk 4 credits**

The theory and practicalities of public health with special emphasis placed on food and milk sanitation.

6.265 Swimming Pool Sanitation **3 class hrs/wk 3 credits**

A study of swimming pool operation and related public health practices.

6.255 Public Health Administration & Sanitary Codes **3 hrs/wk 3 credits**

A study of Federal, state and local public health rules and regulations. Special emphasis is placed on State and local codes and functions of different agencies.

6.270 Rodent and Vector Control Methods **3 hrs/wk 3 credits**

Study of methods and techniques to control rodent and vectors and the prevention of disease in man.

6.205 Seminar **2 class hrs/wk 2 credits**

Selected readings from current journals and professional papers in the environmental field.

6.235 Practical Physics and Hydraulics I **3 class, 2 lab hrs/wk 4 credits**

A study of the basic concepts of hydrostatics, fluid mechanics, metering devices, pressure control and flow rate controllers, as well as principles of pump operation.

6.226 Air and Water Analysis I **8 hrs/wk 4 credits**

A systematic study of laboratory procedures as applied to air and water analysis. The course is designed to provide the student with an understanding of both theory and laboratory techniques required to perform all analyses to determine the sanitary characteristics of air and water from a particular source.

6.227 Air and Water Analysis II **8 hrs/wk 4 credits**

Continuation of 6.226. This portion is designed to develop understanding of the theory and adequate laboratory techniques needed to evaluate air and water treatment methods and operational practices.

6.228 Air and Water Analysis III **8 hrs/wk 4 credits**

Continuation of 6.226 and 6.227. This portion is designed to develop understanding of the theory and adequate laboratory techniques needed to correlate test results with specific design and/or operational problems of air pollution control devices and wastewater disposal plants in LBCC's immediate area.

6.200 Solid Wastes Disposal **3 class hrs/wk 3 credits**

A study of solid wastes disposal methods and processes in the Mid-Willamette area. Specific emphasis is placed on survey techniques and evaluation of disposal methods.

6.216 Principles of Treatment for Air, Water and Solid Waste I

6 hrs/wk 4 credits

A study of the theoretical and practical aspects of water and wastewater treatment units and their relationship to air and solid waste pollutions.

6.217 Principles of Treatment of Air, Water and Solid Waste II

6 hrs/wk 4 credits

A study of the theoretical and practical aspects of air pollution control devices and their relationship to water and solid waste pollutions.

6.218 Principles of Treatment for Air, Water, Solid Waste III

6 hrs/wk 4 credits

A study of the theoretical and practical aspects of solid wastes disposal processes and their relationship to air and water pollution.

6.240 Air Pollution Control I **2 hrs/wk 2 credits**

A study of the basic fundamentals of atmospheric pollution and control. Studies of the nature of polluting materials include gases, dusts, vapors and fumes.

6.241 Air Pollution Control II **2 hrs/wk 2 credits**

Continuation of 6.240. This portion deals with the relation of atmospheric conditions to the dispersal of polluting materials, methods of analysis of polluting materials and methods of control of air pollution.

6.242 Air Pollution Control III **2 hrs/wk 2 credits**

Continuation of 6.240, 6.241. This portion deals with design and conduct of comprehensive air pollution surveys, advanced concepts and design of modern control methods.

6.220 Instrumentation and Controls I **3 class hrs/wk 3 credits**

Basic fundamentals of instrumentation including mechanical, electrical, hydraulic and pneumatic sensing equipment, indicating recording and control devices, stress is placed on the application of specific instruments.

6.221 Instrumentation and Controls II **3 class hrs/wk 3 credits**

Continuation of 6.220. This portion deals with application of instrumentation to processes related to air and water resources management.

6.115 Microbiology for Environmental Control **6 hrs/wk 4 credits**

A general microbiology survey with special emphasis on sanitation microbiology. The following areas will be covered: History and importance of microbiology; basic morphology and physiology of cells; survey of bacteria, their characteristics and importance in the environment; survey of fungi, algae, protozoa, and viruses; techniques of culturing microorganisms; techniques of isolating and identifying microorganisms; and summary of techniques associated with fresh and wastewater microbiology.

INDUSTRIAL DIVISION

AUTOMOTIVE BODY AND FENDER TECHNOLOGY

COURSE DESCRIPTIONS

4.165 Automotive Body and Fender I **2 class, 12 lab hrs/wk 6 credits**

This course provides instruction concerning automotive body and chasis construction, procedures of metal working, assembly and disassembly of components, alignment practices, preparation of vehicle surfaces, use of solder and plastic materials and application of primer and surface finishes.

4.166, 4.167 Automotive Body and Fender II, III

2 class, 17 lab hrs/wk 10 credits

A continuation of Automotive Body and Fender I to provide additional theory and skill acquirements in this field.

3.397 Auto Metalwork I **1 class, 6 lab hrs/wk 3 credits**

Instruction in the procedures for pulling out areas of impact, shrinking and restressing metal areas; leveling with air hammer and finishing with pick hammer and buffer.

4.168 Estimating and Shop Management **2 class, 3 lab hrs/wk 3 credits**

This course is designed to provide the student with an understanding of the factors involved in estimating collision damage and the costs involved in the repair of damage. Principles of shop management are also discussed.

AUTOMOTIVE MECHANICS

COURSE DESCRIPTIONS

3.334 Internal Combustion Engines **4 class, 8 lab hrs/wk 6 credits**

A lecture-lab course of instruction in the various types of internal combustion engines and their component parts, accessories, service and overhaul techniques. The fundamentals and principles of engine reconditioning and repair are studied and performed as the student returns the engine to manufacturer's specification.

3.308 Fundamentals of Automotive Electricity **3 hrs/wk 3 credits**

A lecture-demonstration course intended to acquaint the student with the basic fundamental theories and principles of automotive electricity.

3.335 Automotive Electricity **4 class, 8 lab hrs/wk 6 credits**

Basic instruction and practice in the theory and servicing of automotive electrical equipment and systems. Advanced instruction in automotive electrical systems under conditions similar to those experienced by the line mechanic. Testing, adjusting and servicing of all electrical systems is carried out while the equipment functions as an integral part of the automobile.

3.364 Fuels and Carburation **2 class, 3 lab hrs/wk 3 credits**

An introductory course dealing with the principles and terminology of automotive fuel and carburation systems. Students will become involved with the techniques and overhaul procedures as they apply to carburators, fuel pumps, fuel tanks, fuel gauges and fuel lines and fittings.

3.295 Hydraulics and Pneumatics **2 class, 4 lab hrs/wk 3 credits**

A course to familiarize the industrial student with fundamental principles of hydraulic and pneumatic systems. A study is made of the component parts of specific systems commonly used in automobiles and machinery.

3.290 Chassis I **2 class, 4 lab hrs/wk 3 credits**

A study of the complete system that composes the automotive power train. Emphasis is placed upon the theory, the application and the servicing of differential units, universal joints, drive lines, transfer cases, power take-offs.

3.292 Chassis II **3 class, 4 lab hrs/wk 3 credits**

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

3.278 Transmissions I **2 class, 4 lab hrs/wk 3 credits**

The study of the principles of operation and maintenance of the manually operated transmissions. Detailed inspections and adjustments are conducted on clutches, pressure plates, three-speed, four-speed and five-speed transmissions.

3.280 Transmissions II **2 class, 4 lab hrs/wk 3 credits**

A study of the operating principles and repair-procedures of automatic transmissions, torque converters and fluid couplings. Special emphasis is directed toward developing the ability to swiftly and accurately analyze the performance of automatic transmissions.

3.360 Automotive Machine Shop **2 class, 4 lab hrs/wk 3 credits**

A specialty course devoted to the successful organization and operation of the automotive machine shop. Included are boring, milling, grinding, re-sizing, honing, and other simple operations common to the automotive machinist's work.

3.329 Automotive Repair Practices I **7 lab hrs/wk 3 credits**

A laboratory course in which the student can develop additional abilities and understanding through diagnosis and repair of automotive equipment. It will include overhaul, maintenance procedures, and practices to simulate the work of a line mechanic. Live jobs will be selected to provide the student with a wide scope of experiences.

3.331 Automotive Repair Practices II **7 lab hrs/wk 3 credits**

A continuation of 3.329 Automotive Repair Practices I.

3.332 Automotive Service Management **2 class hrs/wk 2 credits**

This course outlines the duties and responsibilities of the service manager. The students study methods of organizing service personnel, shop facilities, and an introduction to shop layout and buildings. Appreciation of good relationships with customers, labor and management groups, and individuals is emphasized.

3.375 Heat Exchangers and Air Control **2 class, 4 lab hrs/wk 3 credits**

A study of the problems of temperature control both inside the engine compartment and inside the automobile. Included are diagnosis, adjustment and repair of radiators, heaters, air conditioning units, and temperature control accessories.

3.425 Employment Search Techniques **1 class hrs/wk 1 credit**

Designed to aid the student in locating and securing employment. Objectives are not only to find employment but to help in choosing work that most closely matches personality, performance, responsibility, freedom of expression along with skills and knowledge.

3.370 Automotive Brakes **2 class, 4 lab hrs/wk 3 credits**

Fundamental principles of the functioning and repair procedures of automotive braking systems. Included are mechanical, air, electric and combination braking systems with emphasis upon servicing for optimum performance according to established safety standards.

3.350 Selling Principles and Techniques **2 class, 3 lab hrs/wk 3 credits**

A course primarily concerning the attitudes and philosophy of automotive employees who must frequently meet and deal with the public. Particular attention is given to the attributes of successful service station operation which will include product and service knowledge, courtesy, cleanliness, merchandising, planning and organization.

3.324 Tune-Up and Diagnosis **2 class, 4 lab hrs/wk 3 credits**

A problem-solving course of the lecture-demonstration-lab-performance type in which the student works on a live engine. He will call on his learning and skills acquired in previous courses to solve various engine malfunctions and then to bring that engine to optimum operating efficiency.

4.130 Machine Processes **2 class, 3 lab hrs/wk 3 credits**

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

DRAFTING TECHNOLOGY

4.100 Blueprint Reading and Sketching **4 class hrs/wk 2 credits**

A basic course in blueprint reading and sketching. Emphasis will be placed on the interpretation of scale drawings, symbols, and the preparation of "on-the-spot" explanatory sketches.

4.101 Drafting & Blueprint I **4 class hrs/wk 2 credits**

An introductory course in the use of drafting equipment, tools and materials. Geometric construction, lettering, orthographic projection, isometric drawing, and blueprint reading will be among the subjects studied.

4.126 Mechanical Design Principles **2 class hrs/wk 2 credits**

A study of mechanical design as it relates to the draftsman. Emphasis will be placed on design considerations, analysis, procedures, processes, and evaluations.

Prerequisite: Drafting I or equivalent.

4.127 Industrial Practices **2 class, 3 lab hrs/wk 3 credits**

An analysis of the technical procedures and processes used in industry. Manufacturing and construction terminology, methods, materials, and tools will be studied as they relate to drafting. Visitations to local wood products and metallurgical industries will be corrolated with class assignments.

4.148 Practical Descriptive Geometry **1 class, 3 lab hrs/wk 2 credits**

A course in practical descriptive geometry as used by the draftsman. The theory of auxiliary views, true length, shape, angle, and point of intersection developed from point-line plane through the use of revolution.

Prerequisite: Drafting II and Industrial Math II.

4.114 Architectural Drafting **2 class, 6 lab hrs/wk 4 credits**

An introductory course in architectural details. Emphasis will be placed on architectural lettering, symbols, and detail drawings. A wide scope of construction methods and procedures will be studied.

Prerequisite: Drafting I or equivalent.

4.115 Presentation Drawing **1 class, 3 lab hrs/wk 2 credits**

A course involving the drawing of interior and exterior views of architectural subjects for display purposes. One and two-point perspective, basic rendering, ad presentation techniques will be studied. Various media will be employed and a variety of architectural reference materials will be utilized.

4.116 Architectural Planning **2 class, 6 lab hrs/wk 4 credits**

An introductory course in residential and light commercial planning. Basic architectural styles, arrangements, site planning, kitchen planning, symbols, floor plans, elecations, and specifications will be studied.

Prerequisite: Drafting I or equivalent.

4.119 Machine Drafting **2 class, 6 lab hrs/wk 4 credits**

An advanced course involving the design and function of machine components, such as cams, gears, bearings, and fasteners. Special emphasis will be placed on precision dimensioning, tolerances, Mil-standards, and symbolic notations as used by industry.

Prerequisite: Drafting III or equivalent.

4.105 Drafting and Blueprint II **4 class hrs/wk 2 credits**

The emphasis in this intermediate drafting course will be placed on dimensioning, sectional and auxiliary views, inking, and the development of working drawings as used in industry. An introduction to architectural drafting and blueprint reading will be included.

Prerequisite: Drafting and Blueprint I or equivalent.

4.109 Technical Sketching **3 lab hrs/wk 1 credit**

A course in freehand sketching designed to develop skills as they relate to technical and industrial applications.

4.110 Drafting I **1 class, 6 lab hrs/wk 3 credits**

A fundamental course in drafting designed to provide the student with a basic understanding of drafting techniques. Emphasis will be placed on the application of drafting instruments, geometric construction, lettering, orthographic projection, sections and conventions, and pictorial drawings; Isometric and oblique.

4.111 Drafting II **1 class, 6 lab hrs/wk 3 credits**

An intermediate course designed to advance the student in understanding the fundamentals of drafting techniques. Emphasis will be placed on dimensioning, tolerances, threads, and fasteners, intersections and developments, auxiliary views, and working drawings.

Prerequisite: Drafting I or equivalent.

4.112 Drafting III **1 class, 6 lab hrs/wk 3 credits**

An advanced course in charts and graphs, maps and topographic drafting, sheet metal and pipe drafting, structural members, and welding parts.

Prerequisite: Drafting II or equivalent.

6.505 Statics **3 class hrs/wk 3 credits**

This course will deal with a study of bodies in equilibrium under the action of forces. This course is a base for strength of materials.

Prerequisite: Industrial Math III or Trigonometry.

6.509 Human Factors in Design **2 class hrs/wk 2 credits**

This deals with human factors in designing "things" for effective human use, and in creating environments that are stable for human living and work. This is known as biotechnology or ergonomics.

9.053 Drafting Procedures **2 class hrs/wk 2 credits**

This course deals with the drafting profession, study habits, the draftsman's and engineer's role in a technological society, education for a career of change, the philosophy of design, creative techniques and the engineering design process. Field trips and visits by professional architects and engineers will be included.

4.121 Electronics Drafting **1 class, 3 lab hrs/wk 2 credits**

A course introducing the techniques and methods used in the electronic-electrical industry. It includes symbols, wiring diagrams, schematic diagrams, charts and graphs, and pictorial drawings.

Prerequisite: Drafting I or equivalent.

4.122 Strength of Materials **3 hrs/wk 3 credits**

A course designed to develop an understanding of structural materials as they are related to service conditions such as tensile, compressive, and shearing forces. The magnitude and distribution of stresses are studied in materials common to building contractors and manufacturers.

Prerequisite: Industrial Math III (Trigonometry) and Statics.

4.123 Technical Illustration **1 class, 6 lab hrs/wk 3 credits**

A course to introduce students to the techniques and skills involved in commercial illustrations as used in manufacturers instructions and industrial training. Freehand and isometric template drawings, exploded assembly drawings, pencil and ink shading, and color rendering will be covered in this course.

4.125 Project Drafting **7 class hrs/wk 3 credits**

An advanced course offering the opportunity to study, in depth, in an area of interest. The student will select or be assigned problems which will require analysis, mathematical calculations, and the use of reference materials. Speed, accuracy, and drafting room working conditions will be emphasized.

Prerequisite: Drafting III or equivalent.

3.429 Blueprint Reading for the Construction Trades **4 class hr/wk 3 credits**

A basic course in architectural blueprint reading. Emphasis will be placed on the interpretation of blueprints of residential and light commercial structures.

METALLURGICAL TECHNOLOGY

6.293 Introduction to Metallurgy **3 class, 2 lab hrs/wk 3 credits**

Introduction to crystalline and atomic structure of metals, simple metals and alloys, methods of bonding, types of solid solutions, analysis of phase diagrams, heat treatment and hardening mechanisms of metals and the effect of alloying elements.

6.281, 6.282 Non-Destructive Testing I, II **3 class hrs/wk 3 credits**

An introductory course in the theory and techniques of magnetic particle and liquid penetrant inspection dealing with industrial and applications as an integral part of the overall quality control program.

4.161, 4.162, 4.163 Materials Testing I, II, III **4 hrs/wk 2 credits**

Study of the properties of engineering materials. Fundamental aspects of the behavior of engineering materials. Elastic and plastic deformation, fracture, creep, fatigue, impact, temperature effects, and corrosion. Destructive and non-destructive evaluation. Elementary principles of measurements, methodology, test equipment, instrumentation, and analysis of data.

6.276 Physical Metallurgy **3 class hrs/wk 3 credits**

Study of the concepts structures, properties, heat treatment, methods of forming, and evaluation of metals and alloys.

6.294 Process Metallurgy **3 class, 2 lab hrs/wk 3 credits**

Metallurgical principles are studied including raw materials requirements for metals processing, furnaces and refractories, furnace fuels and combustion, heat flow, energy balances and alloy systems.

3.444 Metallurgy **3 class, 3 lab hrs/wk 4 credits**

An introduction to those metals which may be readily welded and how they react to fabrication processes.

6.298 Metallography **3 class 2 lab hrs/wk 3 credits**

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

4.130 Machine Processes **2 class, 3 lab hrs/wk 3 credits**

A basic course designed to familiarize the student with tools and equipment for grinding, milling, turning, boring, drilling and honing. Special emphasis is placed on shop terminology and established standards of workmanship. Lectures and demonstrations are carried out to provide a practical understanding of the subject.

WELDING

4.240 Basic Arc Welding **2 class, 12 lab hr/wk 6 credits**

An introduction to arc welding practices on mild steel of various thicknesses, and joint configurations in all positions on mild steel.

4.241 Intermediate Arc Welding **2 class, 12 lab hrs/wk 6 credits**

This course is a continuation of Basic Arc Welding 4.240. Areas of consideration will be arc welding mild steel and commonly used ferrous and non-ferrous alloys employing the metal arc, TIG, and MIG process.

4.242 Basic Oxyacetylene Welding **2 class, 6 lab hrs/wk 4 credits**

An introduction to oxyacetylene welding practices on mild steel of various thicknesses and joint configurations in all positions on mild steel.

4.243 Intermediate Oxyacetylene Welding **2 class, 6 lab hrs/wk 4 credits**

This course is a continuation of Basic Oxyacetylene Welding 4.242. Areas of consideration will be oxyacetylene welding, soldering, brazing and braze welding of various similar and dissimilar metals.

4.245 Layout Procedures for Welding **2 class, 3 lab hrs/wk 3 credit**

A course to introduce layout principles and applications. Tools and equipment for layout 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 **2 class, 12 lab hrs/wk 6 credits**

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

4.250 Advanced Oxyacetylene Welding **2 class, 6 lab hrs/wk 4 credits**

This course is a continuation of Intermediate Oxyacetylene Welding 4.243. Areas of consideration will be fabrication layout procedures, pipe joint preparation, and large and small diameter pipe welding in all positions.

4.151, 4.152 Welding I, II **2 class, 3 lab hrs/wk 3 credits**

Set-up and operation of Oxyacetylene welding, metal arc welding, and cutting equipment. Demonstrations and practice in welding, brazing and soldering ferrous and non-ferrous metals and their alloys. Technical information on use of rods, composition of metal and application is included. Various types of welds are made and tested. (for non-majors).

4.153 Welding Seminar **3 class hrs/wk 3 credits**

Lecture and discussion sessions covering the field of welding, selection of equipment, welder certification, etc.

GENERAL INDUSTRIAL COURSES

4.108 Industrial Safety **2 class hrs/wk 2 credits**

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

4.127 Industrial Practices **2 class, 3 lab hrs/wk 3 credits**

An analysis of the technical procedures and processes used in industry. Manufacturing and construction terminology, methods, materials, and tools will be studied as they relate to drafting. Visitations to local wood, wood products and metallurgical industries will be correlated with class assignments.

4.320 Analytical Chemistry **3 class, 2 lab hrs/wk 3 credits**

A study of the principles of volumetric analysis, oxidation reduction, titration theory, electro chemical theory, conductmetry, potientiometry and amperometry.

3.462 Industrial Electricity **2 class, 3 lab hrs/wk 3 credits**

An introductory course concerned with the principles and applications of electricity in industry. Studies are made of the basic principles and maintenance of AC and DC motors and generators, their controls, switching gear, and circuit protection devices.

3.425 Employment Search Techniques **1 class hrs/wk 1 credit**

A course designed to aid the student in locating and securing employment. This course should be of equal interest to those students who will be seeking permanent employment or part-time work experience.

4.120 Fundamentals of Specifications **3 class hrs/wk 3 credits**

This course is designed to acquaint the student with usage and practice in the preparation and interpretation of manufacturing and construction specifications. Practical problems will be assigned.

LANGUAGE ARTS DIVISION

Wr 111, 112, 113 English Composition **3 class hrs/wk 3 credits**

A study of the elements of English composition intended to develop skill in writing and understanding expository prose. Special attention to correctness of fundamentals, organization and development of a unified theme, principles of logic as they applied to rhetoric, and the research paper. Frequent written themes and tutorial conferences. Must be taken in sequence.

Eng 101, 102, 103 Survey of English Literature **3 class hrs/wk 3 credits**

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

Eng 104, 105, 106 Introduction to Literature **3 class hrs/wk 3 credits**

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

Eng 107, 108, 109 World Literature **3 class hrs/wk 3 credits**

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

Eng 115 Effective Reading **3 class hrs/wk 2 credits**

For the average reader who wishes to improve his study skills and increase his reading efficiency (speed, comprehension, and vocabulary).

Eng 201, 202, 203 Shakespeare **3 class hrs/wk 3 credits**

A chronological reading of the important plays – comedies, tragedies, and histories – with emphasis upon Shakespeare as a dramatist and poet. The background of the Elizabethan period – its dramatic tradition, its theater, and its culture – is also emphasized.

Eng 253, 254, 255 Survey of American Literature **3 class hrs/wk 3 credits**

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

Wr 241, 242, 243 Introduction to Imaginative Writing **3 class hrs/wk 3 credits**

An introductory sequence for students seriously interested in the techniques of creative writing and a critical appreciation of the art of fiction, drama, and poetry. Each term will include a general consideration of style and criticism of the genres taught.

RL 50, 51, 52 First-Year French **4 class, 1 lab hrs/wk 4 credits**

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

RL 60, 61, 62 First-Year Spanish **4 class, 1 lab hrs/wk 4 credits**

An introduction to Spanish, stressing speaking and reading. Exercises in elementary composition. A minimum of one hour language laboratory practice is required in addition to scheduled lectures.

RL 107, 108, 109 Second-Year Spanish **4 class, 1 lab hrs/wk 4 credits**

A continuation course of RL 60, 61, 62. Some review of basic construction and vocabulary with an intensified systematic development of listening, speaking, reading and writing proficiency. A continued oral practice in the laboratory. A minimum of one hour language laboratory practice is required in addition to scheduled lectures.

Prerequisite: RL 60, 61, 62 or the equivalent.

SP 111 Fundamentals of Speech **3 class hrs/wk 3 credits**

Original speeches, analysis, and synthesis of material with emphasis on organization; outlining, articulation, and group and individual practice to improve the student's poise in the communication act.

Sp 112 Fundamentals of Speech **3 class hrs/wk 3 credits**

A continuation of Speech 111 with greater depth in organization and clear thinking, providing an opportunity for the student to study, prepare, and present the many types of speeches.

Sp 113 Fundamentals of Speech **3 class hrs/wk 3 credits**

A continuation of Speech 112 providing practice in persuasive speaking, further work in panel discussion and parlimentary procedure. The course is designed for all students regardless of speech objectives. Must be taken in sequence.

Sp 229 Interpretation **2 class hrs/wk 2 credits**

A beginning course dealing with the understanding and oral interpretation of prose and poetry. Emphasis is placed on analysis for meaning rather than technique of expression.

Sp 250 Speech and Theater Workshop **1 - 3 credits**

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

1.101, 1.104 Communications Skills I, II **3 class hrs/wk 3 credits**

Designed to improve the student's ability to employ the four basic communication skills; reading, speaking, writing and listening. Emphasis is placed on the written and oral forms of communication as they apply to the professional and technical world. Stresses vocabulary building, group discussion in business and industry, and representative forms of business and technical world. Stresses vocabulary building, group discussion in business and industry, and representative forms of business and technical communication. Need not be taken in sequence.

1.112 Technical Report Writing **3 class hrs/wk 3 credits**

Principles of composition, gathering data, and basic forms of writing reports are covered.

Prerequisite: Communication Skills I and II.

1.610 Public Speaking **3 class hrs/wk 3 credits**

The study of the principles of oral communication and their application. The course stresses the analysis and organization of material, the evaluation of the audience and speaker's purpose. Practice through regular assignments related to student's interest and experience.

0.655 Basic English **3 class hrs/wk 3 credits**

A review of English fundamentals designed for the student who is deficient in the principles of standard English grammar, sentence structure, and usage. Frequent practice in basic writing techniques provided.

0.656 Developmental Reading **3 class hrs/wk 2 credits**

For students who have become conscious of reading difficulties which interfere with effective study and who are actively interested in correcting them.

Phl 201 Problems of Philosophy **3 hours 3 credits**

An introduction to the study of some of the persistent problems of philosophy.

Phl 202 Elementary Ethics **3 hours 3 credits**

An introduction to the philosophical study of morality, e.g., right and wrong, free will and determinism, morals and society, etc.

Phl 203 Elementary Logic **3 hours 3 credits**

An introduction to the study of reasoning. How to recognize, analyze, criticize, and construct the main types of argument and proof.

SCIENCE & MATHEMATICS DIVISION

Recommended sequences in mathematics:

For science and mathematics majors:

(Mth 100) - Mth 101, Mth 102, Mth 110, Mth 200

For non-science majors:

Mth 100, Mth 103, Mth 106

1.110 Elements of Algebra **4 hrs/wk 3 credits**

Introduction to the field properties for the real numbers. Development of the basic operations with algebraic experssions and methods for solving linear equations. The course introduces rational expressions 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.

Mth 100 College Algebra **4 hrs/wk 4 credits**

The study of basic operations on algebraic, rational, and radical expressions. Solution of first and second degree equations and equations involving radicals. Algebraic and graphical solutions for inequalities and absolute values. Introduction to the study of real-valued functions; polynomials, exponential and logarithmic functions. Stated problems and applications are studied throughout the course..

This course is recommended for students having high school algebra and geometry with above average grades or those with lower grades and more math in high school.

Note: Math 1.110 and Math 100 are presented in audio-tutorial form which allows the student greater flexibility in course content and length of time to complete the course, since all lectures are on tape and class time is spent on problem analysis.

Mth 101, 102 Precalculus Mathematics: Elementary Functions

4 hrs/wk 4 credits per term

This two-term sequence in mathematics is intended only for those students who intend to take calculus in college. Students enrolling in the sequence should have mastered the manipulative skills of algebra and be familiar with the concepts of real-valued functions, especially the polynomial, exponential, and logarithmic functions. Mth 100 or equivalent is needed as a prerequisite and the terms must be taken in sequence.

Mth 101: Sets and the cartesian coordinate system, relations and functions, operations on functions, polynomial functions, exponential and logarithmic functions.

Mth 102: Circular functions, trigonometric functions, vectors in the plane, complex numbers and theory of equations, conic sections.

Mth 103 Introduction to Statistics **4 hrs/wk 4 credits**

A general one term introductory course in statistics. The objective is to acquaint the student with the ideas and language of the probability models and statistical inference. Special emphasis is placed upon selecting the correct model and investigating the reasonableness of the condition under which the model is derived. The course is designed for college students in liberal arts, business, biological science, etc.

Prerequisite: Mth 100 or 101 or consent of insturctor.

Mth 106 Introduction to Calculus **4 hrs/wk 4 credits**

A one term course in the elements of differential and integral calculus approached largely from a intuitive point of view. The course is designed as a terminal course in mathematics for college students in liberal arts, business, biological sciences, etc., and provides the fundamentals of calculus needed to understand and formulate new problems.

This course will not substitute as the first term of a regular calculus sequence.

Prerequisite: Mth 102 or 103 or consent of instructor.

Mth 110 Analytic Geometry **4 hrs/wk 4 credits**

Rectangular and polar coordinate systems, linear transformations, loci in two- and three-dimensional spaces. Analytic background essential for study of the calculus.

Prerequisites: Mth 101 and 102.

Mth 121, 122, 123 Math for Elementary Teachers

Mth 121: 4 hrs/wk 4 credits
Mth 122: 3 hrs/wk 3 credits
Mth 123: 2 hrs/wk 2 credits

An introduction to mathematical language and logic; a major emphasis is on the properties of an ordered field and their relations to whole numbers, integers, rational and real numbers. Introduction to elementary plane geometry, i.e., incidence, measurement, congruence and similarity. The student will be expected to make conjectures, write proofs and compare mathematical systems.

Prerequisite: Elements of Algebra or equivalent and/or consent of instructor.

Note: Ed 209 must be taken concurrently with Math 122,123.

Mth 200, 201, 202, 203 Calculus **4 hrs/wk 4 credits**

Standard sequence for students in mathematics, science, and engineering.

Mth 200: Functions and graphs, limits, continuity, differentiation, applications of differentiation, related rates and extrema, antidifferentiation.

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 hrs/wk 3 credits**

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

Prerequisite: Mth 100 or consent of the instructor.

4.145 Industrial Math I **3 hrs/wk 3 credits**

A brief review of basic arithmetic. The purpose is to help the student become more efficient and effectively handle the arithmetic involved in his occupational area. An emphasis on ratio and proportion, powers and roots, scientific notation and the use of logarithms.

Prerequisite: Basic math or satisfactory arithmetic test score and/or consent of the instructor.

4.146 Industrial Math II **3 hrs/wk 3 credits**

Introduction to algebra and geometry with emphasis placed on problem-solving in general occupational applications. Solutions of right triangles and basic trigonometric relations are also included.

Prerequisite: Mth 4.145 or consent of instructor.

4.147 Industrial Math III **3 hrs/wk 3 credits**

Development of algebraic concepts, operations and graphic applications. Solving equations with more than one unknown and quadratic equations as applicable to many occupational areas. Extension of trigonometric relations to all triangles and relations between trigonometric functions. The emphasis is to develop the mathematics necessary for industrial levels of application.

Prerequisite: Mth 4.146 or consent of instructor.

0.668 and 0.669 Basic Mathematics I, II **3 hrs/wk 3 credits each term**

The course is designed as a thorough review of the arithmetical processes and provides a basis for the study of algebra. Systems of numeration; fundamental operations with whole numbers, integers, common fractions, and decimal fractions; measurement; ratio and proportion; per cent; graphs; equations and formulas; word problems.

6.337 Slide Rule **3 lab hrs/wk 1 credit**

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

Ed 209 Practicum Teaching Mathematics **1 - 3 credits**

Observation and introductory experience in education

1 hr/wk taken concurrent with Mth 122

2 hrs/wk taken concurrent with Mth 123

1 hr: Implications to the teaching of mathematics; writing behavioral objectives; conditions of learning; material selection and methods of presentation.

2 hr: Applications and evaluation of teaching methods through visitations of local schools and a personal T.V. presentation taped for self-evaluation precedures.

4.211 Nutrition I **3 hrs/wk 3 credits**

To acquaint the student with the standards and principles which apply to adequate nutrition, how they can be achieved in daily food selection and how diet can be modified to help provide for physical and mental health.

4.212 Nutrition II **3 hrs/wk 3 credits**

Continuation of Nutrition I.

Bi 101, 102, 103 General Biology **1 hr lecture**
4 hrs activities, 1 hr discussion 4 credits

Principles of life applied to plants, animals and protists. May not be taken for credit if a student has completed six or more hours in a college level course in a biological science.

For NON-MAJORS: Students may enter any term, however, it is best to take each term in sequence.

Bi 101: Cellular biology and genetics

Bi 102: Tissues, organs, organ systems, homeostasis and behavior

Bi 103: Evolution, diversity of life, ecology.

Flexibility is the key word for this program for non-majors. Students may come and go from the lab at their own convenience.

Through flexibility we try to:

a. better accommodate schedule and commuting problems.

b. integrate all aspects of the course so that all of a week's activities are related to the same topic and are arranged in order for the clearest possible understanding of the material.

c. provide personal tutoring for those who can profit by it.

d. allow students to go at their own speed so that they can learn effectively.

e. provide opportunities for repetition or review.

Bi 211, 212, 213 Biology For Majors **3 hrs lecture, 4 hrs lab 5 credits**

Bi 211: Cellular structure, organization and function.
Bi 212: Genetics, comparative physiology and developmental biology.
Bi 213: Behavior, population, community and ecosystem dynamics, plant and animal evolution.
(Consent of instructor required.)

Bot 201, 202, 203 General Botany **3 hrs lecture, 3 hrs lab 4 credits**

Bot 201: Anatomy, physiology, development and genetics of seed plants
Bot 202: Survey of the plant kingdom
Bot 203: Identification of native plants; use of keys, floral morphology.

4.201, 4.202 Human Anatomy and Physiology **6 class hrs 4 credits**

This course provides essential knowledge concerning anatomy and physiology that is of use to nurses and other students in health-related technical programs. Techniques are emphasized.

4.207 Microbiology **3 class hours 2 credits**

A general microbiology survey with special emphasis on sanitation and medicine. Survey of micro-organisms. Morphology and physiology of micro-organisms. Culturing techniques, isolation and identification of micro-organisms. Ecological importance.

4.207 Microbiology **3 class hrs/wk 2 credits**

Microbiology Lab (Nursing) 2 lab hrs/wk 1 credit
Microbiology Lab (Environmental Tech) 3 lab hrs/wk 2 credits

G 201, 202, 203 Geology **5 class hrs/wk 4 credits**

Earth materials, processes and forms, formation of economic mineral deposits, the main events in the history of the earth. Field work will be used where applicable.

GS 104, 105, 106 Physical Science **3 class, 2 lab hrs/wk 4 credits**

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, but students are advised to complete one year of high school algebra, or equivalent, as prerequisite to the course. 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; matter, energy, chemical change.
GS 106: Principles of astronomy and earth science.

Ph 201, 202, 203 General Physics **3 lecture, 1 discussion, 2 lab hrs/wk 4 credits**

First year college physics for science majors. The study of energy and physical phenomena, including the fundamental principles of mechanics, heat, sound, light, electricity, magnetism and a brief introduction to modern physics.

Prerequisite: Math 100 or premission of the instructor.

4.302, 4.304 Practical Physics **3 class, 2 lab hrs/wk 4 credits**

An introductory course in practical physics for vocational students. Laboratory time is provided for experiments to clarify the principles and procedures covered in class. Students are advised to complete industrial Mathematics I, or equivalent, as a prerequisite to the course. Elementary algebra is desirable. Students may enter any term.

4.302: Measurement, matter, mechanics, machines, heat.

4.304: Light, sound, magnetism, electricity, electronics, nuclear energy.

4.215 Physics **3 hrs/wk 3 credits**

An introductory course in physics and physical science as applied to the fields of health technology. Lecture demonstrations help illustrate physical principles.

Prerequisite: Enrollment in a health technology program. Some knowledge of algebra is advised.

Ch 101, 102, 103 General Chemistry **3 class, 3 lab hrs/wk 3 credits**

Survey course of inorganic and organic chemistry. Designed as a service course for students not intending to major in science or engineering. This course will not transfer as a prerequisite for advanced chemistry courses and cannot be used as a sequence for science majors. High school chemistry is not required.

Ch 104, 105, 106 General Chemistry **4 class, 3 lab hrs/wk 5 credits**

A general inorganic chemistry course designed for students with a chemistry requirement in their transfer curriculum. Students transferring to Oregon State University will have to take a one term lab course in order to take advanced chemistry courses.

Ch 107 General Chemistry Lab **2 - 3 lab hrs/wk 2 credits**

Laboratory work to complete the instruction given in Ch 104, 105, 106 and to prepare students for more advanced laboratory training in chemistry.

Prerequisite: Ch 106.

Ch 234 Analytical Chemistry **2 class, 6 lab hrs/wk 4 credits**

Service course for medical science and technical students. Topics include gravimetric, volumetric and instrumental analysis.

Ch 226, 227, 228 Organic Chemistry **3 credits Fall & Winter, 2 credits Spring**

Service course covering aliphatic and aromatic chemistry.

Ch 229 Organic Chemistry Lab **6 lab hrs/wk 2 credits**

A laboratory course taken concurrently with Ch 228.

4.204 Chemistry for Medical Science Students **5 class, 3 lab hrs/wk 6 credits**

An intensive introductory course offered during the summer term covering inorganic and organic chemistry; and biochemistry. Practical laboratory experiments will be integrated with discussion material. No previous chemistry course work is required.

OCCUPATIONAL SERVICES DIVISION

FIRE SCIENCE

5.250 Fire Fighting Skills I **9 lab hrs/wk 3 credits**

Individual skills using small tools and minor equipment, practice in forcible entry, use of masks, and other activities generally performed by the individual.

5.251 Fire Fighting Skills II **1 class, 6 lab hrs/wk 3 credits**

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.

5.252 Fire Fighting Skills III **5 class hrs/wk 2 credits**

Practice in skills involving multi-company operations, including simultaneous activities of ladder, engine, and salvage companies; manning large stream appliances, coordinating communications, etc.

5.253 Fire Apparatus and Equipment **2 classes, 3 lab hrs/wk 3 credits**

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

5.254 Introduction to Fire Protection **3 class hrs/wk 3 credits**

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.

5.287, 5.288 Physics (Fire Science) I, II **5 hrs/wk 3 credits**

An introductory course in practical physics. Laboratory time is provided for demonstrations and experiments to clarify the principles and procedures covered in class. Students are advised to complete Basic Mathematics I or equivalent as a prerequisite to the course. Elementary Algebra is desirable. Students may enter any term.

5.258 Company Organization and Station Assignment **3 class hrs/wk 3 credits**

Fire company organization and operation; company responsibilities in station, including record keeping, state communications; and watch, housekeeping and house privileges, tours and public relations, company organization for response to alarms, company morale.

5.260 Hazardous Materials I **5 class hrs/wk 3 credits**

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 for fire control.

5.255 Rescue and Emergency Care for Fire Science **3 hrs/wk 3 credits**

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.

5.261 Hazardous Materials II **5 class hrs/wk 3 credits**

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

5.262 Fundamentals of Fire Prevention **3 class hrs/wk 3 credits**

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

5.263 Pump Operation and Practical Hydraulics **2 class, 3 lab hrs/wk 3 credits**

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.

5.264 Building Construction for Fire Prevention **2 class, 3 lab hrs/wk 3 credits**

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

5.265 Fire Department Organization & Management **3 hrs/wk 3 credits**

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.

5.266 Fire Insurance Rating and Grading **3 hrs/wk 3 credits**

This course deals with insurance grading schedules and their application. Methods of analyzing fire hazards and the effects of fire hazards on fire insurance are discussed. A study of the National Board Grading Schedule is made in detail with other schedules covered briefly. The fundamentals of fire insurance rating methods, loss records, municipal grading and related topics are also covered.

5.267 Fire Department Communications and Alerting **2 class hrs/wk 2 credits**

Dispatching, receiving, and radio communication procedures; FCC regulations; municipal box alarm; telephone and tone-activated alarm, recording messages; tap-out procedures, running cards, etc.

5.268 Rescue Practices **6 class hrs/wk 2 credits**

Electrical, use of rescue tools; common rescue carries; search and rescue procedures; handling nets; care of victim, excavation emergencies; evacuations.

5.269 Water Distribution Systems **3 class hrs/wk 3 credits**

Main systems; hydrants: size, gridding, valving, distribution; residential and commercial districts; fire flow requirements; pumping stations; high pressure systems; storage tanks and cisterns; mobile supplies.

5.270 Fire Reports and Records **2 class hrs/wk 2 credits**

Analysis of fire department records and reports systems, their origins, types and functions. Application of these systems to the areas of pre-fire surveys, routine inspections, post-fire reporting, cost-accounting, research and planning.

Prerequisite: Communication Skills I and II.

5.272 Fixed Systems and Extinguishers **5 class hrs/wk 2 credits**

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

5.273 Fire Investigation **3 class, 3 lab hrs/wk 4 credits**

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.

5.274 Fire Fighting Tactics and Strategy **3 class hrs/wk 3 credits**

Response and size-up; fire ground tactics; analysis and postmortem; pre-fire survey and planning.

5.282 Codes and Ordinances **3 hrs/wk 3 credits**

A thorough study of the fire code, building, exit, flammable liquid and other codes as related to fire prevention. Designed primarily for fire service inspectors.

5.285 Legal Aspects of Fire Protection and Prevention **3 hrs/wk 3 credits**

This course traces the history and background of laws relating to the fire service; tort liability of municipalities, municipal employees, and members of the fire service; clarification of legal terminology; civil service laws and requirements; persion, mutual aid and fire prevention codes.

SUPERVISORY TRAINING

COURSE DESCRIPTIONS

9.500 Elements of Supervision **3 hrs/wk 3 credits**

A basic introductory course covering in general terms the total responsibilities of a supervisor in industry, such as organization, duties and responsibilities, human relations, grievances, training, rating, promotion, quality-quantity control, and management-employee relations.

9.501 Written Communications For Supervisors **3 hrs/wk 3 credits**

Review of writing mechanics covering grammar, punctuation, sentence structure and paragraph structure. Business letter writing involving the principles, planning and dictating of letters. Memorandum and bulletin writing with emphasis on format, content, structure, tone and style. Manual writing covering format, content and structure.

9.502 Basic Psychology For Supervisors **3 hrs/wk 3 credits**

Course to assist the supervisor in understanding the people with whom he works, with emphasis on the psychological aspects, perceptions, learning processes, emotions, attitudes and personalities.

9.503 Oral Communication For Supervisors **3 hrs/wk 3 credits**

How we communicate. Effective speaking and listening. Kinds of supervisory communications. Saying what we mean, which covers oral versus written communications. Understanding what is communicated as related to intent and effect. Conference leading practice for supervisors.

9.504 Developing The Employees Through Training **3 hrs/wk 3 credits**

The supervisors' responsibility for developing employees through training. Orientation and induction. Vestibule and on-the-job techniques. Job instruction principles. Apprenticeship training, technical training. Supervisory training and management development. Use of outside agencies. Advisory committees.

9.505 Report Writing For Supervisors **3 hrs/wk 3 credits**

Types of reports: statistical, financial, narrative, technical. Steps in preparing the report. Parts of the report. Techniques of writing. Format, style and organization. Illustrating the report. Practice in writing and evaluating reports in the occupational field of the individual enrollees.

9.506 Human Relations (Developing Supervisory Leadership)
3 hrs/wk 3 credits

To show the practical application of basic psychology in building better employer-employee relationships by studying human relations techniques. Prerequisite: Basic Psychology for Supervisors.

9.507 Reading Improvement For Supervisors **3 hrs/wk 3 credits**

General approach to better reading through the proper use of text materials, reading films, tachistscope and practice. Benefits of better reading, evaluating and analyzing what is read, vocabulary improvement, advanced reading tips.

9.508 Labor-Management Relations **3 hrs/wk 3 credits**

The history and development of the Labor Movement. Development of the National Labor Relations Act, the Wagner Act, the Taft-Hartley Act. The supervisor's responsibility for good labor relations. The union contract and grievance procedure.

9.509 Industrial Economics **3 hrs/wk 3 credits**

Significant economic facts. Development of a critical attitude toward industrial economics. Institutions and practices that determine our social environment. Management-supervisory-employee relationships to economics and local industry.

9.512 Methods Improvement For Supervisors (Work Simplification)
3 hrs/wk 3 credits

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 hrs/wk 3 credits**

How costs are determined in industry. Cost control and its functions. The supervisor's responsibility for costs. Factors in cost control: costs, materials, waste, salvage, quality control, control of time.

9.516 Supervisor's Responsibility For Management of Personnel
3 hrs/wk 3 credits

Personnel techniques for which the supervisor is partially responsible and for which he should have some training in carrying out his responsibility. Selection, placement, testing, orientation, training, counseling, merit rating, promotion, transfer and training for responsibility.

9.518 Organization and Management **3 hrs/wk 3 credits**

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

9.520 Job Analysis For Wage Administration **3 hrs/wk 3 credits**

The history of wages. Inequalities in rates of pay. Management and union movement toward a "fair wage" plan. The supervisory and job descriptions, job specification, job evaluations and job classifications. 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 hrs/wk 3 credits**

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

9.524 Management Controls And The Supervisor **3 hrs/wk 3 credits**

Basic principles of controls. Delegation of responsibility through the use of controls. The purpose and objectives of controls, manufacturing costs, quality control, quantity control, production control, control over materials, control over personnel, organization.

HEALTH & PHYSICAL EDUCATION DIVISION

PE 131 Introduction to Health, Physical Education, and Recreation. **3 hours**

Professional orientation; basic philosophy and objectives; professional opportunities and qualification.

PE 180 Physical Education (Women) **3 class hrs/wk 1 credit**

A variety of activities taught for physiological and recreational values. A total of five terms required for all lower division women students. 1 hour each term.

PE 185 Physical Education (Co-educational) **3 class hrs/wk 1 credit**

A variety of activities taught for physiological and recreational values. A total of five terms required for all lower division women and men students. 1 hour each term.

PE 190 Physical Education (Men) **3 class hrs/wk 1 credit**

A variety of activities taught for physiological and recreational values. A total of five terms required for all lower division men students. 1 hour each term.

PE 250 Personal Health **2 class hrs/wk 2 credits**

Application of facts and attitudes to the maintenance of optimum health for the individual and society; effects of alcohol, tobacco, drugs, with emphasis on family life, mental health, communicable and non-communicable diseases and nutrition. Satisfies the college requirement in health education for both men and women. 2 hours any term.

PE 252 First Aid **3 class hrs/wk 3 credits**

Theory and practice in immediate and temporary care given in case of accident or sudden illness. Complies with American Red Cross requirements. Meets standard and advanced certification requirements set by the American Red Cross.

SOCIAL SCIENCES DIVISION

COURSE DESCRIPTIONS

Anth 101, 102, 103 General Anthropology **3 class hrs/wk 3 credits**

Fall: Man as a living organism, biological evolution, fossil man; winter: prehistoric cultures; spring: organization and functioning of culture. (Recommended for students planning to major in anthropology. Also may be used to fulfill general education requirement in social science. Transfer students should not complete both Anth 101, 102, 103 and Anth 207, 208, 209.)

Anth 207, 208, 209 Introduction to Cultural Anthropology **3 class hrs/wk 3 credits**

The meaning of culture; its significance for human beings; its diverse forms and degrees of elaboration among different groups of man; its processes of growth and expansion. (Meets general education requirement in social science. Transfer students should **not** complete both Anth 101, 102, 103 and Anth 207, 208, 209.)

EC 201, 202, 203 Principles of Economics **3 class hrs/wk 3 credits**

Principles underlying production, exchange, and distribution; practical problems relating to monetary and banking policy, trade regulations, taxation, labor relations, unemployment, business cycles. Three terms must be taken in sequence.

Prerequisite: Sophomore standing.

Geog 105, 106, 107 Introductory Geography **3 class hrs/wk 3 credits**

A general introduction to the field of geography.

Geog 105: physical geography

Geog 106: regional survey of the world

Geog 107: cultural geography.

Hst 101, 102, 103 History of Western Civilization **3 class hrs/wk 3 credits**

Origins and development of western civilization from ancient times to the present. The study of the political, economic, social and religious institutions which have shaped the "modern mind". Also, a study of the significant men and women who have influenced man's development.

Hst 201, 202, 203 History of the United States **3 class hrs/wk 3 credits**

From colonial times to present.

PS 201, 202, 203 American Governments **3 class hrs/wk 3 credits**

PS 201: principles of American constitutional system, political process, and organization of national government;

PS 202: powers and functions of national government;

PS 203: practical operation and contemporary reforms in government at state and local levels.

PS 205 International Relations **3 class hrs/wk 3 credits**

Analysis of the nature of relations among states, with specific reference to contemporary international issues; a study of the motivating factors, including nationalism, economic rivalries, quest for security, etc; study of the problems of national sovereignty and its relation to international cooperation.

PSY 201, 202, 203 General Psychology **3 class hrs/wk 3 credits**

A survey of methods, theories and facts of contemporary psychology considered as a biological and social science. Covers: the nervous system, learning, heredity and maturation, intelligence, measurement and statistics, motivation, emotion, sensation, perception, thought, abnormal behavior and therapy, personality and social psychology. MUST BE TAKEN IN SEQUENCE.

Soc. 204, 205, 206 General Sociology **3 class hrs/wk 3 credits**

A survey of methods, concepts, theory and fact in contemporary sociology. Topics included are: culture, personality, socialization, social control and deviation, social organization, social processes and interactions, human ecology, social movements and change, race and ethnic relations in the U.S. SHOULD BE TAKEN IN SEQUENCE.

1.124 American Institutions **3 class hrs/wk 3 credits**

A study of the effect of the American social, economic and political institutions upon the individual as a citizen. Topics considered are: culture, its functions and changes; social groups in relation to problems of urban living; the American economic system and the American political systems.

Administration and Faculty

ADMINISTRATION & FACULTY

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942 Lancaster Drive N.E., Salem, Oregon 97310

ADMINISTRATION

PRESIDENT

Raymond J. Needham, Ph.D., Colorado State University; B.S., M.Ed., Washington State University.

DEANS

O. R. Adams, Dean of Instruction. Ed.D., M.Ed., University of Oregon; B.S., Oregon State University.

A. Lee Archibald, Dean of Students. M.Ed., B.S., Oregon State University.

Vernon E. Farnell, Dean of Business Affairs. M.Ed., B.S., University of Idaho.

DIRECTORS

Edgar Draper, Assistant Director of Continuing Education. Attended Draper's School of Commerce and Oregon State University. Has 32 years working experience.

Wilfred A. Jordan, Director of Occupational Education. Attended Lower Columbia Junior College, Longview, Washington, and University of Wisconsin and University of Washington. Has 20 years of industrial experience – personnel, public relations, etc.

Joseph L. Leger, Director of Learning Resource Center. B.A., University of California (Berkeley); M.A., San Jose State College.

William D. Maier, Accountant - Assistant to the Dean of Business. BBA Southwest Texas State College, Life-time privileges with the International Accountants Society.

H. R. McClain, Director of Athletics. B.S., M.S., University of Oregon.

Robert A. Miller, Director of Student Activities. B.A., Southern Oregon College; M.S., Oregon State University.

Robert D. Talbott, Director of Counseling. B.S. Humboldt State College; M.S., University of Washington.

Margaret A. Toftdahl, Coordinator of Information & Publications. Attended University of Oregon.

O. W. Zielaskowski, Director of Continuing Education. B.S., M.Ed., Oregon State University.

COUNSELORS

Robert D. Talbott, Director of Counseling. (See Directors)

Janet Brem. B.S., M.Ed., Oregon State University.

Raymond Miller. B.A., California State College, Los Angeles; M.S., University of Oregon.

Blair Osterlund. Ph.D., University of Missouri; B.S., University of Washington; M.S., University of Oregon.

FACULTY

Occupational Education

AGRICULTURAL SERVICES

Edgar Draper, Division Chairman and instructor. Attended Draper's School of Commerce and Oregon State University. Has 32 years working experience.

ASSOCIATE DEGREE NURSING

Gayle L. Greene, Division Chairman. R. N. Diploma, Jackson Memorial Hospital School of Nursing, Miami, Fla.; B.S., Florida State University; M.S. Columbia University.

Judith Kraft, Instructor. R.N. Diploma, Providence Hospital School of Nursing, Portland, Oregon; B.S., California State College, Los Angeles.

Faith Lindahl, Instructor. R.N. Diploma, B.S., South Dakota State University.

BUSINESS EDUCATION

Philip V. Clark, Division Chairman and Coordinator, Data Processing. B.S., M.B.A., San Jose State College.

Garland S. Brooks, Instructor. A.A., San Jose City College; B.S., M.Ed., Oregon State University.

Dorothy Hazel, Instructor. B.S., University of South Dakota; M.B.A., University of Denver; Ed.D., University of Kentucky.

Alan Schultz, Instructor. B.S., M.B.A., Long Beach State College.

Steve Shelton, Instructor. Attended University of Arizona; I.B.M. programming training over a two-year period; seven years working experience in data processing.

Alan Walczak, Instructor. B.S., Portland State College; M.Ed., Oregon State University.

DENTAL ASSISTANTS

Vera Collins, Division Chairman and Instructor. A.D.A.A. Certification; twelve years working experience.

ENVIRONMENTAL TECHNOLOGY

James Suddreth, Division Chairman and Instructor. B.S., University of Arkansas; M.S., University of Oklahoma. Has six years working experience.

Ray M. Borrall, Instructor. Twelve years teaching experience, eighteen years practical working experience in Wastewater Treatment Plant Operation.

INDUSTRIAL DIVISION

L. Carl Love, Division Chairman and Instructor. B.S., M.S., Oregon State University.

John Alvin, Instructor. B.S., Oregon State University.

David Carter, Instructor. Apprenticeship training at Eugene Technical-Vocational School; ten years practical mechanical experience.

Keith Pond, Instructor. Twenty years practical experience.

James Reynolds, Instructor. B.S., M.A., California State University at Los Angeles; five years practical working experience.

John E. Spurr, Instructor. B.S.M.E., California State Polytechnic College; M.S.M.E., Stanford University.

Elwyn D. Stewart, Instructor. Twelve years practical working experience.

Judith T. Green, Coordinator of Apprenticeship Training. B.S., M.S., University of Oregon.

NURSING ASSISTANTS

Anne Mills, R.N., Coordinator and Instructor. R.N. Diploma, St. Mary's Hospital School of Nursing, Minnesota; B.S., St. Louis University, Missouri. Twenty years working-teaching experience.

Janet Raffensperger, R.N., Instructor. R.N. Diploma, B.S., State University of Iowa College of Nursing, Iowa. Ten years working-teaching experience.

General Education

CREATIVE ARTS DIVISION

John Mack, Division Chairman and Instructor. B.A., California College of Arts; M.A., San Francisco State College.

Walter J. Brick, Instructor. A.A., San Mateo Junior College; B.A., University of Washington; M.A., University of Oregon.

HEALTH AND PHYSICAL EDUCATION DIVISION

H. R. McClain, Division Chairman and Instructor. B.S., M.S., University of Oregon.

Arlene Crosman, Instructor. B.S., M.Ed., Oregon State University.

Verlund Kimpton, Instructor. B.S., M.S., University of Oregon.

LANGUAGE ARTS DIVISION

Donald H. Minnick, Division Chairman and Instructor. B.A., Cornell College; M.A., University of Iowa.

Shirley Call, Instructor. B.A., Goshen College; M.A., University of Oregon.

Ken Cheney, Instructor. B.A., M.A., Colorado State College.

Betty George, Instructor. B. S., M.S., Illinois State University.

Charles Mann, Instructor. B.S., M.A., Oregon State University.

Barbarajene Williams, Instructor. M.A., Arizona State University; B.S., Wisconsin State University.

SCIENCE AND MATHEMATICS DIVISION

William Siebler, Division Chairman and Instruction. B.A., Western Washington State College; M.A., Oregon State University.

Galen Nielsen, Instructor. B.S., Oregon College of Education; M.S., Oregon State University.

Raymond D. Perkins, Instructor. B.A., M.Ed., Central Washington State College; M.S., Oregon State University.

Robert A. Ross, Instructor. B.S., M.S., University of Oregon.

Peter Scott, Instructor. B.S., Oregon State University; Ph.D., Purdue University.

Ed Wright, Instructor. B.S., Western Montana College; M.S., Western Washington State College.

SOCIAL SCIENCES DIVISION

James K. Barnes, Division Chairman and Instructor. B.A., M.A., University of Arkansas.

Russell Durham, Instructor. B.A., M.A., Arizona State University.

Max Lieberman, Instructor. B.S., Defiance College; M.A., Miami University.

Maribel Montgomery, Instructor. M.A., B.A., University of California at Berkeley.

NEW FACULTY AND STAFF MEMBERS

Atwood, Illa, Instructor. B.S., Oregon State University, 1964; M.Ed., Oregon State University, 1967.

Baker, James C., Instructor. B.S., University of Wyoming, 1962; M.S., University of Wyoming, 1964.

Bervin, Arthur E., Instructor. B.A., Portland State College, 1962; M.A., University of Redlands, 1965.

Carnegie, John, Instructor. B.S., Oregon State University, 1965; M.S., Oregon State University, 1969.

Chester, Patsy, Instructor. B.S., Oregon State University, 1963; M.Ed., Oregon State University, 1968.

Otto, Richard C., Counselor. B.S., Oregon State University, 1968; M.S., Oregon State University, 1971.

Patrick, Michael, Placement & Financial Aids Officer. A.A., San Bernardino Valley College, 1962; B.S., California State Polytechnic, 1964.

Preston, Mrs. James, Instructor. R.N., B.S., University of North Dakota, 1964.

Swearingen, Dell, Instructor. Oregon College of Education, 1967. M.S., University of Oregon, 1971.

Thornton, Larence N., Instructor. A.D., University of Oregon, 1949; Washington Vocational Certificate; Auto-Body Journeyman's card.

West, Richard M., Instructor. B.S., Oregon State University, 1967.

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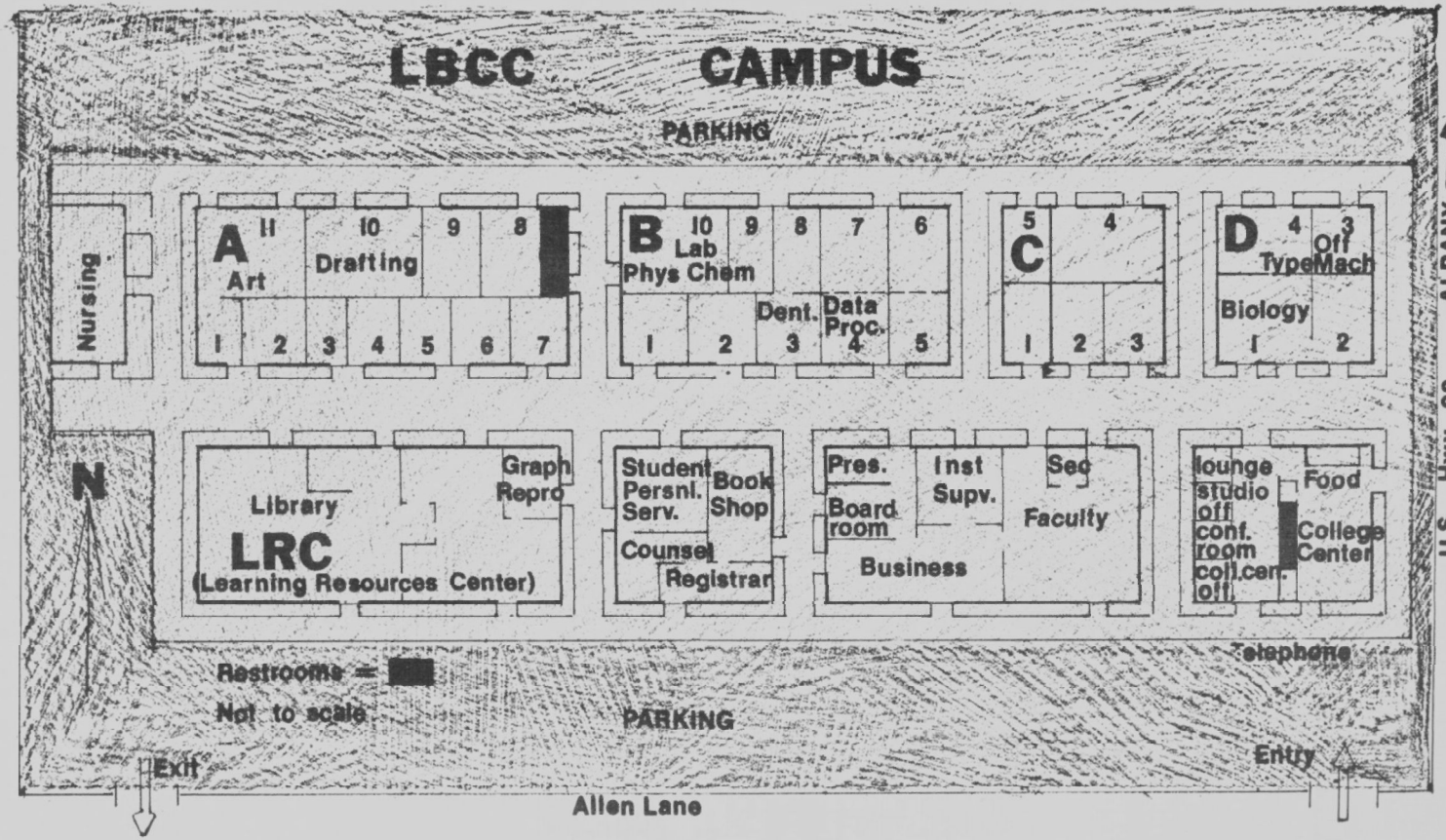
GENERAL INFORMATION

PROGRAMS & COURSES OF STUDY


LBCC CAMPUS
PARKING
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Biology
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LRC
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Telephone
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