LINN-BENTON COMMUNITY COLLEGE

Catalog 1970-71

Calendar for 1970-71

FALL TERM	
Registration	August 3 to September 25
Classes begin	September 28
Last day to Register or add courses	October 2
Thanksgiving	November 26-29
Last day to drop with the Automatic "W"	December 11
Final Exams	December 14-17
Last day of Fall Quarter	December 18
Christmas Vacation	December 19-January 3
WINTER TERM	
Registration begins	November 30
Classes begin	January 4
Last day to Register or add courses	January 8
Last day to drop with the Automatic "W"	March 12
Final Exams	March 15-18
Last day of Winter Quarter	March 19
Spring Recess	March 20-28
SPRING TERM	
Registration begins	March 1
Classes begin	March 29
Last day to Register or add courses	April 2
Memorial Day	May 31
Last day to drop with the Automatic "W"	June 4
Final Exams	June 7-10
Graduation	June 10
Last day of Spring Quarter	June 11
SUMMER TERM	
Registration	June 17-18
Classes begin	June 21
Last day to Register or add courses	June 25
Independence Day	July 5
Last day to drop with the Automatic "W"	August 9
Final Exams	August 10-11-12
Last day of Summer School	August 13
FALL TERM—1971-72	
Registration	August 2
Classes begin	September 27
Thanksgiving	November 25-27
Fall Term Ends	December 17

Linn-Benton Community College

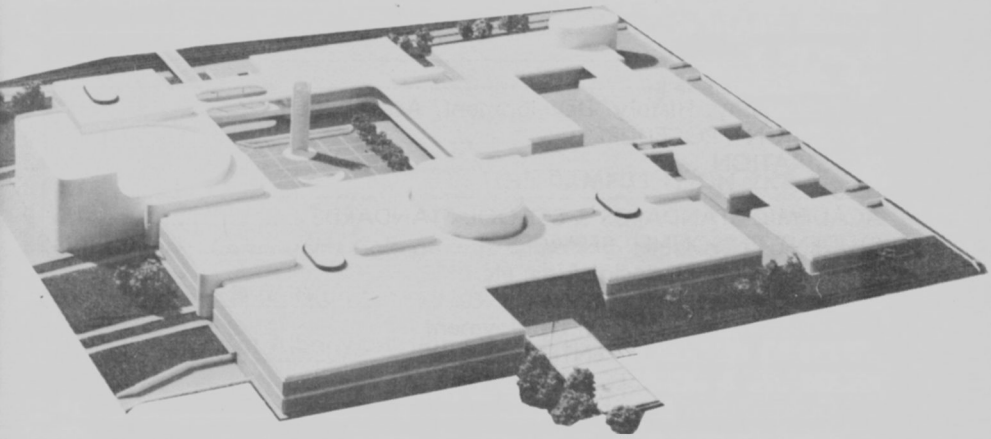
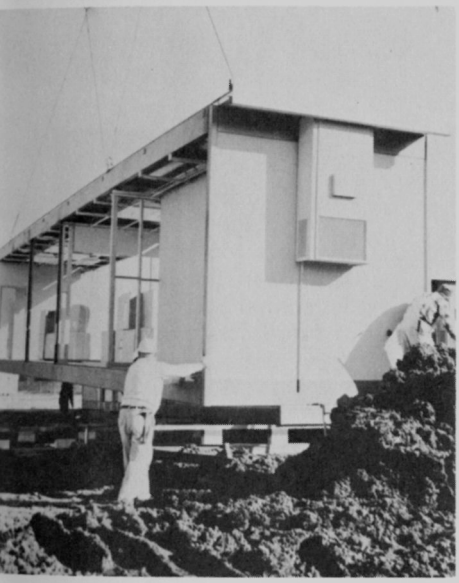


Table of Contents



A Campus for LBCC

THE CAMPUS IS ON THE MOVE!

Linn-Benton Community College will operate in especially constructed relocatable units on the college site located one and a half miles South of Albany on Highway 99E by fall of 1970. Permanent facilities should be completed in 1973. Prior to this year, students met in 28 different locations throughout Linn and Benton counties.

Administration

FACULTY

Eldon G. Schafer, Ph.D.	College President and Clerk of the Board
Vernon E. Farnell	Business Manager
Robert Adams	Dean of Instruction
Lee Archibald	Dean of Student Personnel Services
Orville Zielaskowski	Director of Adult Education and Evening College

BOARD OF EDUCATION

Mr. Ivan Burnett	Zone 1
Mr. Russell W. Tripp	Zone 2
Mr. James Jordan	Zone 3
Mr. Glenn Huston	Zone 4
Mr. J. M. Lambert, Vice-Chairman	Zone 5
Dr. Virgil H. Freed	Zones 6 & 7
Mr. Herb Hammond, Jr., Chairman	Zones 6 & 7

BUDGET COMMITEE MEMBERS

Mr. Jack Buchanan
Mr. Ivan Burnett
Mr. George Cadmus
Mr. Roy Collins
Mr. Dick Manion
Mr. LaVern Ratzlaff
Mr. Charles Root

STATE BOARD OF EDUCATION

Dr. Eleanor Beard, Chairman, Lake Oswego
Richard F. Deich, Vice-Chairman, Portland
Eugene H. Fisher, Oakland
Francis I. Smith, Portland
W. Warren Maxwell, Lakeview
Frank J. VanDyke, Medford
Frank M. Warren, Portland

Dale Parnell, Superintendent of Public Instruction,
942 Lancaster Dr., N. E., Salem, Oregon 97310

Eldon G. Schafer, Ph.D.
College President/and
Clerk of the Board

All of us at LBCC welcome you to Oregon's friendliest community college. We hope this catalog will be of assistance to you in planning a program which will allow you to reach your goals in the most efficient manner.

Since you are our most important product, everyone is eager to assist you in reaching your career goals. Some careers require one or two years of post-high school education, others four or more. Regardless of your vocational plans, there's a place for you at LBCC.

If I can be of any assistance, please feel free to call upon me. I will look forward to meeting you.

Eldon G. Schafer
President


FLICKERS NIGHT
EMPLOYMENT

The College

THE PHILOSOPHY OF THE COLLEGE

Linn-Benton Community College is dedicated to providing educational 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 continuously the quality of its offerings, the standards of achievement, the effectiveness of its instruction, and the relevance of its programs.

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. **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 of its 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 divisions of human studies, humanities and science; and (f) knowledge in depth of one subject area.
2. **Occupational-Vocational-Technical Education:** The Vocational-Technical 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 advanced technology by providing vocational-technical offerings to meet changing demands of 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 Certificate of Achievement.

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

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. **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 the staff, students, the community-at-large, business and industry, state welfare agencies, and with high schools and four-year colleges. Since many students enter the College with aspirations beyond their capabilities, a major function of counseling and guidance is to help such students evaluate their goals and enter upon possible and useful programs.

5. **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.

Quality within diversity is the hallmark 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 of rigor and each of high quality for its intended purpose. Extensive guidance, counseling, and testing procedures insure students being placed in appropriate curricula so that the "open door" policy will not become a "revolving door" for students.

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, satisfactorily completing the GED tests; and to older non-high school graduates who may be admitted as special students.

Many courses and curricula are available—some within the range of the student's interest and abilities, some outside his interests, and some beyond his abilities. He need not choose what lies outside his interests, but on the other hand, he cannot choose that which clearly lies beyond his abilities. The "open door" policy is not synonymous with "open door" curriculum. Appropriate standards of performance must be maintained within each course.

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.

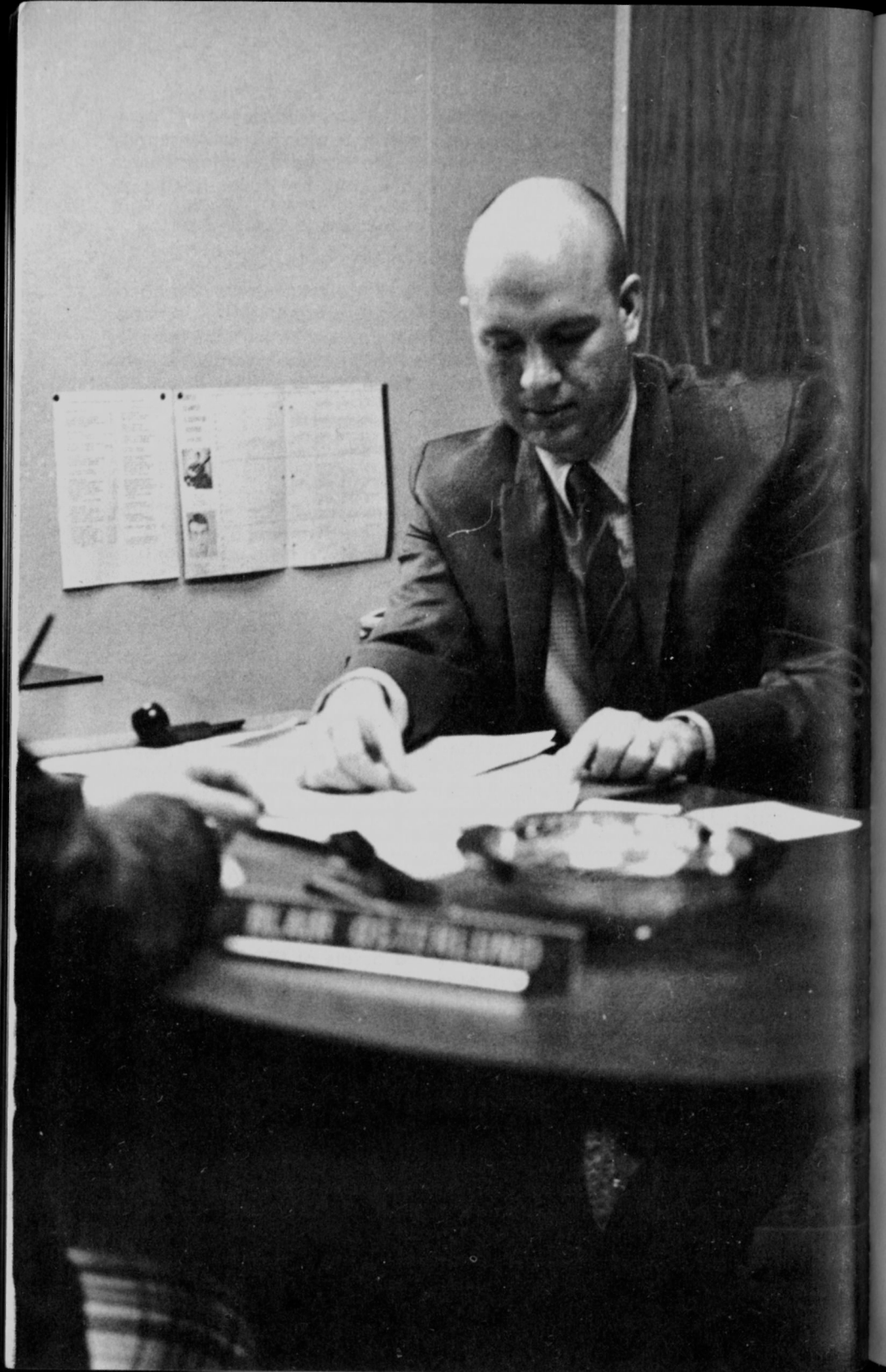
On July 31, 1967, the College assumed assets of the former Capital Business College and moved from temporary quarters in the Linn County I.E.D. Office to the building at 203 West First Avenue, Albany.

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 dollar bond issue to construct a campus for Linn-Benton Community College. Construction should get underway by the Fall of 1970.

ACCREDITATION:

Linn-Benton Community College is fully accredited by the Oregon State System of Higher Education and the Oregon State Department of Education, and offers a variety of programs approved by the Veterans' Administration. Linn-Benton Community College is recognized as a "Candidate" by the Northwest Association of Secondary and Higher Schools.



Admission Procedure

APPLICATION

Students who register for 8 or more credits must file with the Admissions Office:

1. An Application for Admission.
2. A copy of high school transcript or copies of all college work. It is the student's responsibility to secure transcripts for LBCC file.

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.

ADMISSION REQUIREMENTS

Linn-Benton Community College is organized to serve the educational needs of all the citizens of the college district who can benefit from instruction at the college.

Graduates of high schools of the State of Oregon will be admitted as regular students. Non-high school graduates, 18 years of age and older, may be admitted as regular students upon satisfactory completion of the General Education Development (GED) tests. Non-high school graduates may establish eligibility by submitting evidence of appropriate work experience or other types of training gained beyond the high school years.

Students applying to enter one of the occupational programs must be 18 years of age and must, in the judgment of the administration, be able to benefit from the instruction offered. Admission to occupational programs varies slightly, but is generally 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 students desiring to enroll in classes at Linn-Benton Community College should contact the Dean of Student Personnel Services. These students are required to take the TOEFL test to determine their eligibility for admission.

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 Student Personnel Services.

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 health occupation course work. 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 August 3.
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 Student Personnel Services. 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 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 August 3. 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 Student Personnel Services.

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

QUARTERLY FEE SCHEDULE—CREDIT CLASSES

Credit Hours	Resident Students*	Non-Resident Students	*Out of State
1	$ 6.00	$ 11.00	$ 33.00
2	12.00	22.00	66.00
3	18.00	33.00	99.00
4	24.00	44.00	132.00
5	30.00	55.00	165.00
6	36.00	66.00	198.00
7	42.00	77.00	231.00
8	48.00	88.00	264.00
9	54.00	99.00	297.00
10	60.00	110.00	330.00
11	66.00	121.00	363.00
12 or more	72.00	132.00	396.00

*Includes foreign students

***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.

All other students are required to pay non-resident or out-of-state tuition.

FEES

Change of Program
(After classes begin) $1.00
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 $5.00 during the late registration period. (See school calendar, inside front cover.)

REFUNDS

A full-time student withdrawing from school by the end of the third week will receive a full refund of tuition less $10.00. 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-transferable 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 Student Personnel Services.

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 Student Personnel Services.

CREDIT LIMIT RULE

A student may not transfer more than 93 hours of lower division collegiate work to a state institution of higher education, nor may a student who has received 93 or more credit hours in any other university or college use the courses taken at LBCC as transferable credit to a state four-year college or university.

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. At any step in this process, the right of appeal to the Administrative Council remains open.

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 determined by the appropriate LBCC department. Grades 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
WF—Withdraw failing
I—Incomplete work (did not take final)
W—Official withdrawal
P—Pass

Incomplete Rule: Incompleted work must be completed by the end of the following term or it is automatically considered "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
WF—0 grade points per credit, no hours attempted
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

HONOR ROLL

President's Honor List: At the conclusion of each quarter, every student's grade point average is computed and 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

Non-transfer 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 three quarters is not 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.

Any student suspended or on probation who is transferring from another institution of higher education to Linn-Benton Community College will be automatically placed on probation at Linn-Benton Community College.

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 $.50 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 REQUIRMENTS

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 requirments 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.
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 structured 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.

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.

*See Page 19 for Physical Education requirements

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 P.E. 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 Student Personnel Services.
4. Students wishing to appeal a decision by the Dean of Student Personnel Services shall make a written request 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 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.

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.

FINANCING YOURSELF AT LINN-BENTON COMMUNITY COLLEGE

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 1969-70 and will need financial assistance in the form of a grant, loan, or campus employment should carefully read the following. Since the college has limited funds for providing financial assistance, applicants are asked to observe the deadlines as specified for each type of financial aid.

College Work Study (CWS): Includes on and off campus part-time employment. Student financial need is used to determine eligiblity.

Application:

1. Complete the standard "Community College Financial Aid Application", pages 1, 2, and 3.
2. Parents complete page 4. This page should be completed by applicant if financially independent.
   Optional: 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 Dean of Student Personnel.

Application Dates*:

May 1 for fall and summer quarters—will be notified by June 1.
June 1 for fall quarter 1970—will be notified by July 1.
November 13 for winter quarter 1971—will be notified by December 15.
February 12 for spring quarter 1971—will be notified by March 12.

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

College Board Grants

Tuition free grants are available in all high schools within the college district. In addition, an individual may apply directly to the LBCC Student Personnel Office.

How to apply: **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.

When to Apply: **Before May 1 or as specified by your high school.**

Educational Opportunity Grants (EOG)

This cash grant federally supported program is established for students with **exceptional financial need.**

Application:

1. Complete the standard "Community College Financial Aid Application", pages 1, 2, and 3.
2. Parents complete page 4. This page should be completed by applicant if financially independent.
   Optional: 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 Dean of Student Personnel.

*Application Dates:

May 1 for fall and summer quarters—will be notified by June 1.
June 1 for fall quarter 1970—will be notified by July 1.
November 13 for winter quarter 1971—will be notified by December 15.
February 12 for spring quarter 1971—will be notified by March 12.

*Individuals **may apply after** these dates as alternates or as funds are available.

Financial Assistance for Law Enforcement Education

Financial assistance is available to law enforcement personnel and pre-service law enforcement students in the forms 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 "Community College Financial Aid Application".
3. Presently employed Law Enforcement personnel may apply for L.E.E.P. support and register concurrently. Contact the Student Personnel Office for additional information on this procedure.

*Application Dates:

May 1 for fall and summer quarters—will be notified by June 1.
June 1 for fall quarter 1970—will be notified by July 1.

November 13 for winter quarter 1971—will be notified by March 12.

*Individuals **may apply after** these dates as alternates or as funds are available.

Part-Time Student Employment

Application: Complete an application in the **LBCC Student Employment Office** for on or off campus employment.

Deadline: There is no deadline. Early application is recommended.

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 $1000 per academic year.

Application: Complete a GSL application form which is available through the Student Personnel Office.

Deadline: None

Scholarships

Several community service organizations and business establishments have offered scholarship assistance for the 1970-71 school year. We recommend that interested individuals contact the Dean of Student Personnel Services or high school principals or counselors.

Emergency Loan

Emergency, short-term loans are available through the Student Personnel Office. Emergency loans are limited to full-time students. A portion of the Emergency Loan Fund has been made available by the Lebanon Business Women's Club.

Application: Apply through the Student Personnel Office at any time.

Deferred Tuition Payment (Easy Pay Plan)

Full-time students may have the payment of their tuition extended with the approval of the Student Personnel Office. A minimum of one-third of the total tuition must be paid down and the total tuition must be paid by the end of the fifth week of classes.

Application: Complete application which is available in the Student Personnel Office.

Deadline: None (During Registration)

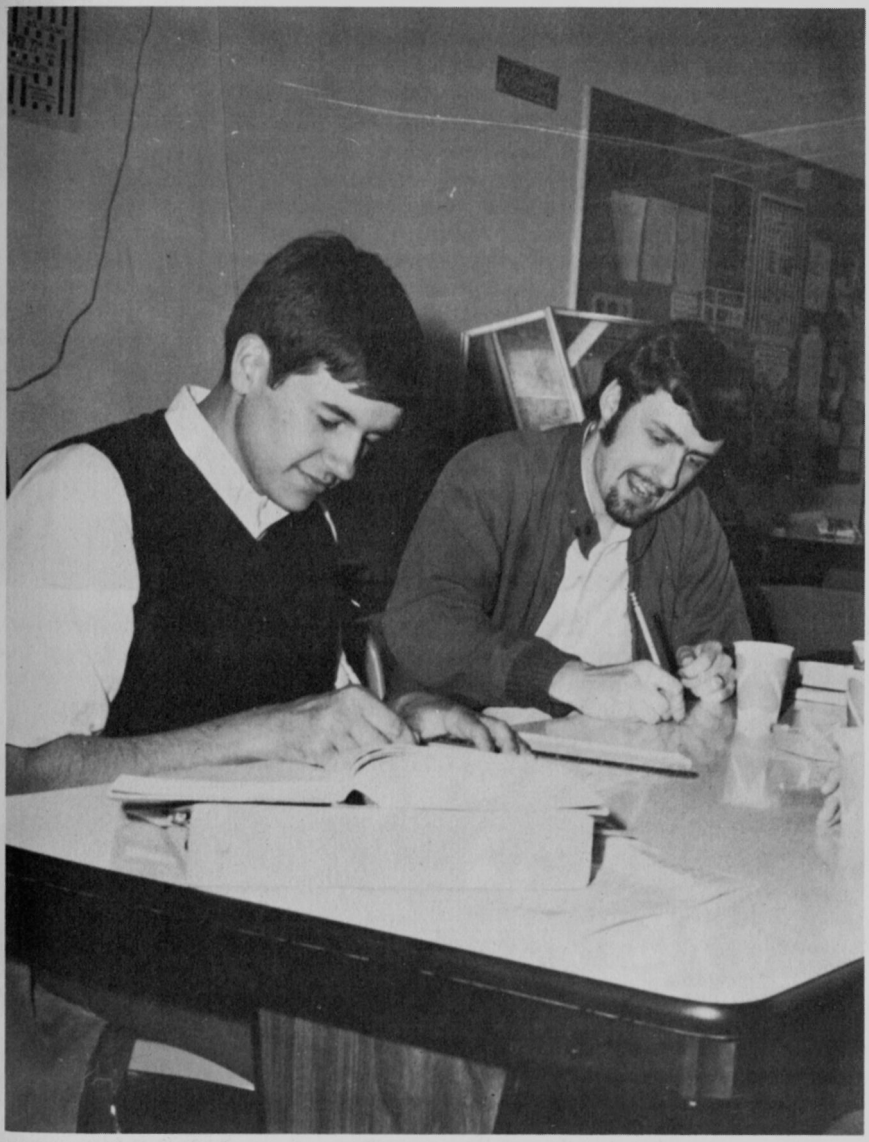
Estimating Your Expenses: Contact the Office of Student Personnel Services for information on estimating the cost of attending.

Scholarships and Grants

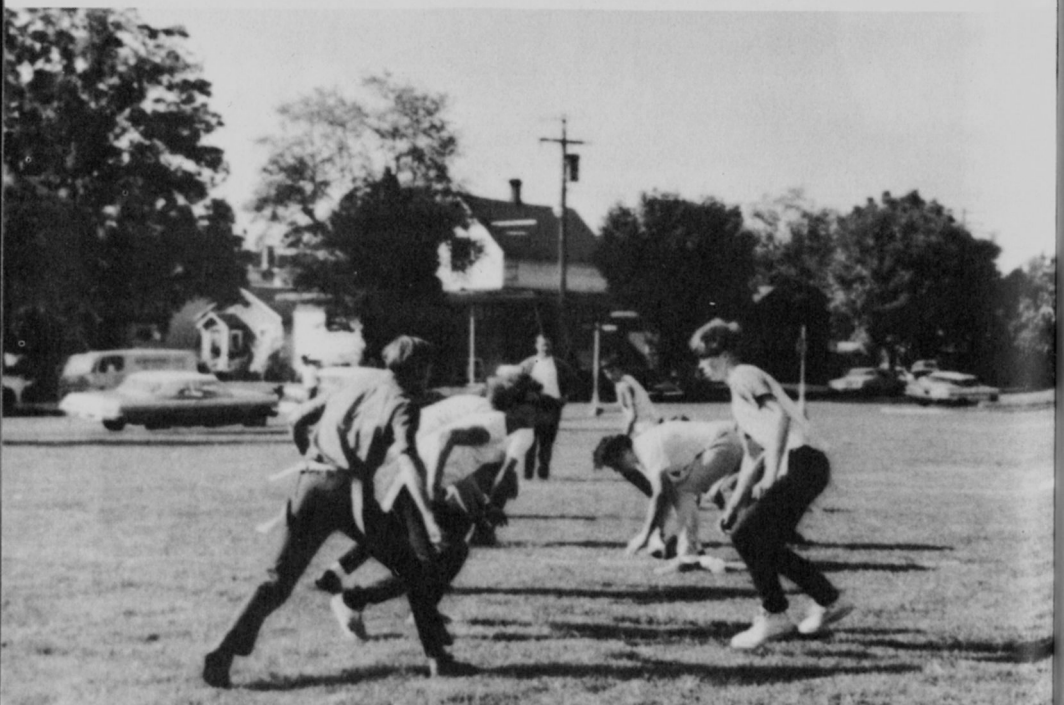
Scholarships have been and will be made available to both incoming and returning students by various civic and business organizations in the community. Some of these scholarships are awarded directly by the high school scholarship committee. Included are: South Santiam Vocational Scholarship, Albany PEO Scholarship, Albany JC Wives Fund.

Deferred Tuition Payment

The college offers a deferred payment for tuition charges to students carrying 12 or more credit hours. Books and special laboratory fees are specifically excluded. The terms of payment are a minimum of one-third down at the time of registration and the balance within 30 days from the beginning of the quarter.



Student Activities



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 will 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 liason 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 and drink dispensaries, student government offices, placement and employment service, 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 9:30 p.m. Monday through Thursday and 8:00 a.m. to 5:00 p.m. on Friday.

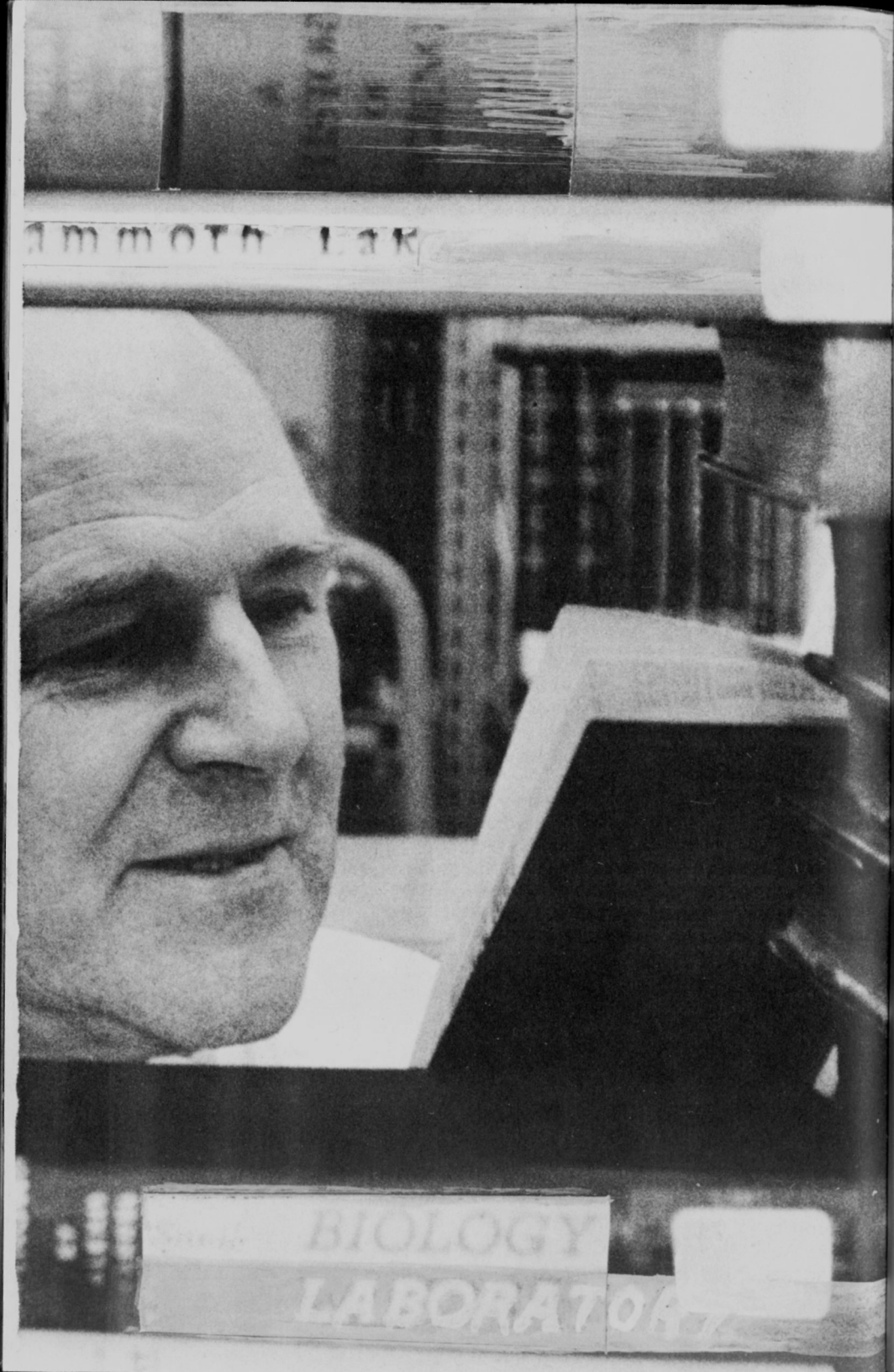
HOUSING

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 in the surrounding area.

Any interested LBCC student desiring part-time employment should register with the Director of Student Activities in the College Center.


BIOLOGY
LABORATOR

Learning Resources

LEARNING RESOURCES CENTER

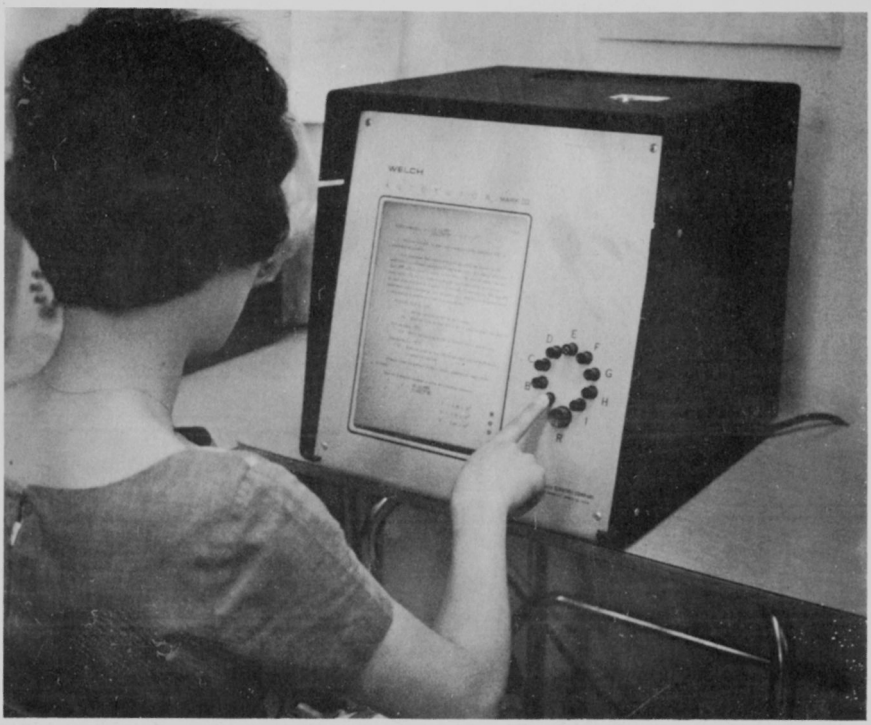
The center for organized out-of-class learning is the Learning Resources Center (LRC). Here are housed books, periodicals, pamphlets, microfilms, slides, tapes and other materials useful to learning along with the necessary equipment to provide the best use. Reading, listening and viewing assignments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

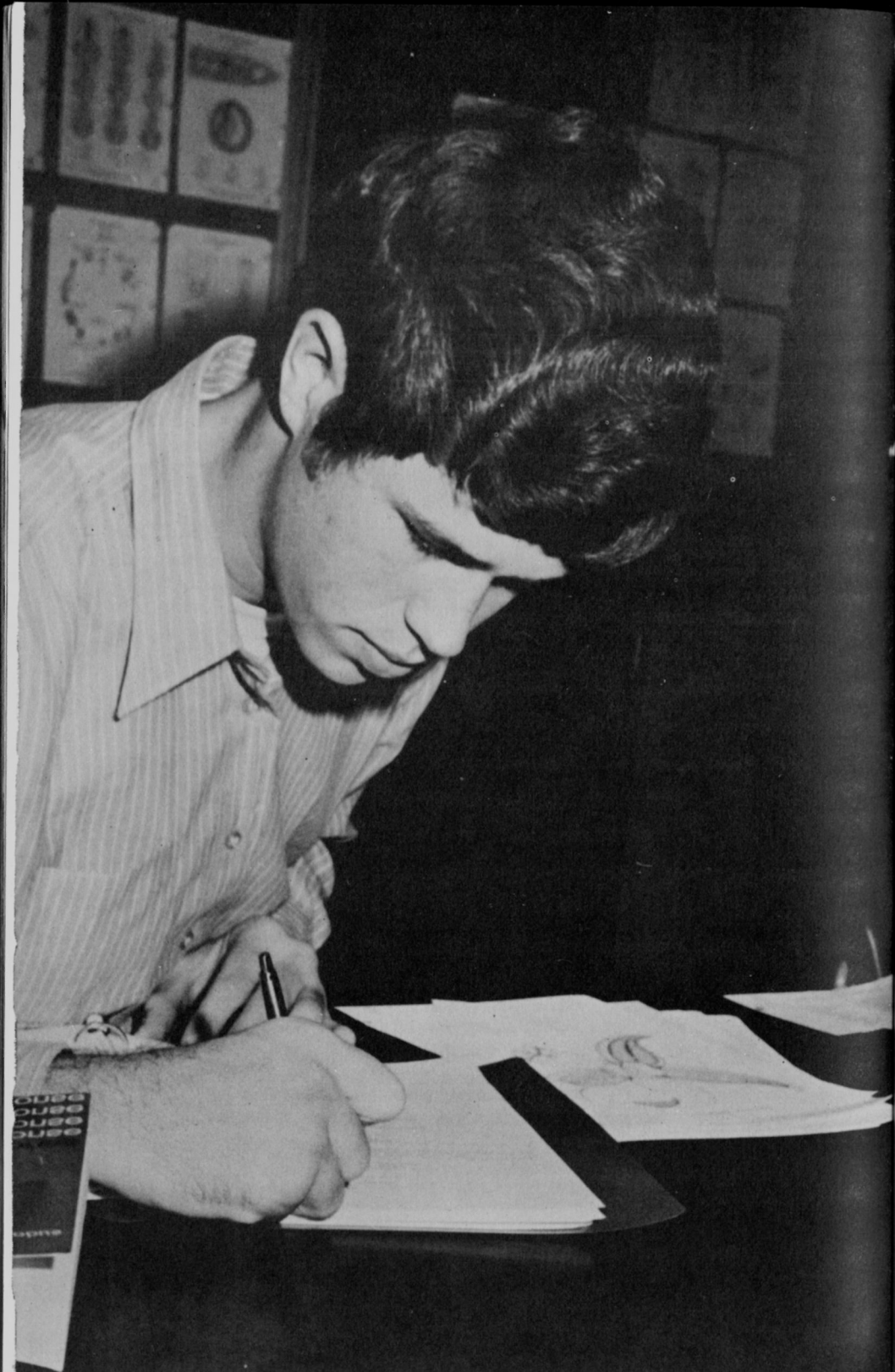
Additional references include collections of reprints, pamphlets, maps and occupational materials.

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.





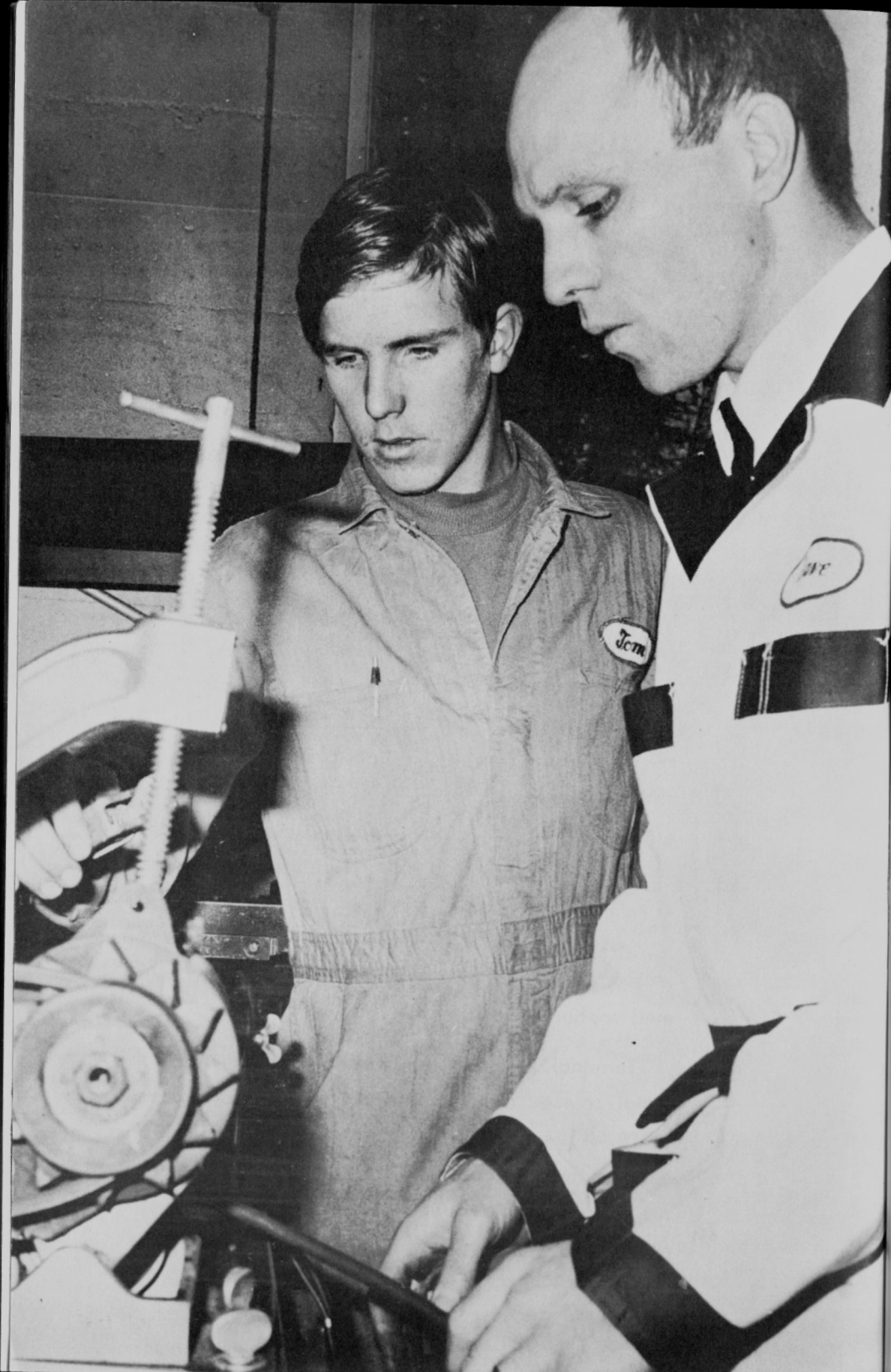
Programs and Courses of Study

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 to 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.

Terminal (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 Technical

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, feed, seed, turf management and farm supply industry. The industry serves the farmer by providing supplies such as feeds, 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.

Agricultural Technology

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 four options:

Feed Technology
Turf and Forage Seed Technology
Turf Management
Fertilizer and Chemicals

Students working toward an Associate Degree follow one of the four 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 Certificate Program
Feed Technology

Course No.	Course Title	F	W	S
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	3	3	3
Ch 101	General Chemistry	3		
Ch 102	General Chemistry			3
8.122	Botany			4
1.500	Employer-employee Relations	3		
8.144	Animal Science & Nutrition	4		
8.145	Feeds and Feeding		4	
8.188	Ag Equipment Maintenance		2	
8.130	Agriculture Chemicals		4	
2.119	Business Management			3
8.230	Work Experience			3
	Elective		3	
		17	16	16

One Year Certificate Program
Turf and Forage Seed Technology

Course No.	Course Title	F	W	S
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	3	3	3
Ch 101, Ch 102	General Chemistry	3		3
8.122	Botany			4
1.500	Employer-Employee Relations	3		
8.165	Crops		3	
8.188	Ag Equipment Maintenance		2	
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	3		
		16	15	17

One Year Certificate Program
Turf Management

Course No.	Course Title	F	W	S
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	3	3	3
Ch 101, Ch 102	General Chemistry	3		3

8.122	Botany			4
1.500	Employer-Employee Relations	3		
8.188	Ag Equipment Maintenance		2	
8.130	Agriculture Chemicals		4	
8.135, 8.136	Turf Management I, II		2	2
8.138	Irrigation and Drainage		3	
8.140	Landscape Management		2	
2.119	Business Management			3
8.230	Work Experience			3
	Elective	3		
		16	16	18

One Year Certificate Program
Fertilizer and Chemicals

Course No.	Course Title	F	W	S
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	3	3	3
Ch 101, Ch 102	General Chemistry	3		3
8.122	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			3
	Electives	3	3	
		16	15	16

Two Year Degree Program
Ag Technology

Course No.	Course Title	F	W	S
1.101, 1.104	Communications	3	3	
1.124	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	1	1	1
HE 250	Health			2
	Work Experience		3	3
	Electives	3	3	3
		16	16	15

Business Division

BUSINESS MANAGEMENT

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

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

The program also provides opportunities for those persons already engaged in business to obtain further training that will help them advance in their employment.

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	Hours Per 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
	Electives, General Ed. and Others— Introduction to Business BA 101 is Suggested	4	4	3	3-4
		16	16	16	

Sophomore Year
Option I—Business Administration

Course No.	Course Title	Credits F	W	S	Hours Per wk
1.608	Psychology of Human Relations			3	3
1.610	Public Speaking		3		3
2.509	Introduction to Data Processing	4			5
2.119	Business Management	3			3
2.518	Business Law			3	3
2.516	Introduction to Business Statistics		3		3
2.222	Financial Management			3	3
2.710, 2.711, 2.712	On-the-Job-Training and Seminar	4	4	4	16
1.112	Technical Report Writing		3		3
	Electives, General Ed. and Others	5	3	3	3-5
		16	16	16	

Total — 96 Credits

Option II—Distribution Management

1.608	Psychology of Human Relations			3	3
1.610	Public Speaking		3		3
2.308	Principles of Advertising	3			3
2.119	Business Management	3			3
2.518	Business Law			3	3
2.131	Elements of Marketing		3		3
2.134	Retail Merchandising			3	3
2.710, 2.711, 2.712	On-the-Job-Training and Seminar	4	4	4	16
1.112	Technical Report Writing		3		3
	Electives	6	3	3	3-6
		16	16	16	

Total — 96 Credits

BOOKKEEPING — CLERICAL

The two-year Associate Degree awarded to graduates of this program is widely recognized by the business community and provides a sound basis for entry into the field.

Those students who choose to complete only the first year of the program will be awarded a certificate indicating their successful completion of this phase.

The following outline indicates the general course requirements for those seeking the Associate Degree in Bookkeeping-Clerical.

Entry into the various skill courses will be based on prior training and proficiency.

Freshman Year

Course No.	Course Title	Credits F	W	S	Hours Per wk
1.101, 1.104	Communication Skills I, II,	3	3		3
2.548	Business English			3	3
2.515	Business Math	3			3
2.501, 2.502, 2.503	Typing I, II, (III is optional)	2	2		4
2.521	Office Machines			3	5
2.509	Introduction to Data Processing	4			5
2.510	Fundamentals of Unit Record Equipment		4		5
2.530, 2.531, 2.532	Bookkeeping I, II, III	3	3	3	5
PE 180 or 190	Physical Education	1	1	1	3
HE 250	Personal Health		2		2
	Electives, General Ed. and Others		1	6	1-6
		16	16	16	

Sophomore Year

2.524, 2.525, 2.526	Office Procedures, I, II, III	2	2	2	3
2.119	Business Management	3			3
1.524	Applied Economics			3	3
1.608	Psychology of Human Relations			3	3
1.112	Technical Report Writing		3		3
1.610	Public Speaking		3		3
2.652	Filing and Records Control			2	3
	Electives (Business or Secretarial)	4	4	3	3-4
	Electives, General Ed. and Others	7	4	3	3-7
		16	16	16	

Total — 96 Credits

SECRETARIAL STUDIES — OFFICE ADMINISTRATION

A two-year program designed to provide students with a background which will prepare them for positions of responsibility as executive secretaries, office managers, or administrative assistants.

Initial placement in the on-the-job portion of the program will be determined by the background of skills already possessed by each applicant.

(On-the-job training may be allowed for outstanding freshman students.)

A certificate of completion will be awarded those successfully completing the first year of the sequence.

An Associate in Arts Degree will be awarded those who also successfully complete the second year of the program.

Freshman Year

Course No.	Course Title	Credits F	W	S	Hours Per 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	4
2.541, 2.542, 2.543	Stenography I, II, III	3	3	3	5
2.548	Business English			3	3
2.530, 2.531, 2.532	Bookkeeping I, II, III	3	3	3	5
2.521	Office Machines	3			5
2.652	Filing and Records Control			2	3
PE 180 or 190	Physical Education	1	1	1	3
HE 250	Personal Health		2		2
	Electives, General Ed. and Others	1	2	2	1-2
		16	16	16	

Sophomore Year

2.505, 2.506	Typing IV, V	2	2		4
2.524, 2.525, 2.526	Office Procedures I, II, III	2	2	2	3
2.545, 2.546, 2.547	Applied Stenography I, II, II	3	3	3	6
2.509	Introduction to Data Processing	4			5
1.610	Public Speaking		3		3
1.608 or 1.606	Psychology of Human Relations or Introduction to Psychology			3	3
1.121	Poise, Posture, Personality			2	3
2.613, 2.614, 2.615	On-the-Job Training and Seminar	4	4	4	16
	Electives, General Ed. and Others	1	2	2	1-3
		16	16	16	

Total — 96 Credits

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 Title	Credits F	W	S	Hrs/ wk
Communication Skills or Writing 111 & 112	3	3		3
Intro to Data Processing	3			3
Intro to Programming	3			3
Accounting or Bookkeeping	3	3	3	3
Mathematics (if required)	4			5
Micro Language I		3		5
Documentation Procedures		3		3
Personal Health		2		2
Micro Language II			3	5
Systems and Procedures			3	3
Applied Economics			3	3
Business Law			3	3
Physical Education	1	1	1	3
	17	15	16	

Sophomore Year

Course Title	Credits F	W	S	Hrs/ wk
Macro Language I (R.P.G.)	3			5
Operating Systems Concepts	3			3
Psychology of Human Relations	3			3
Analysis of Financial Statements	3			3
Macro Language II (R.P.G.)		3		5
Programming Concepts & Technology		3		3
Application Programs		3		3
Introduction to Business Statistics		3		3
*Data Processing Field Project			8	
Data Processing for Business Management			3	3
General Education Electives	3	3	3	3
	15	15	14	

*See course description.

15. W
17- S

Fire Science

A program designed to bring to the student those skills and related knowledge necessary for pursuing entry level employment in a wide field including private, commercial, and governmental organizations. The curriculum is broad in subject matter 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.

Students are cautioned to seek counseling in order to assure proper selection of electives in their chosen field of emphasis. 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.

FIRE PROTECTION TECHNOLOGY

Freshman Year

Course No.	Course Title	Credits F	W	S	Hrs /wk
1.100, 1.102	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
Ch 201, 202, 203	Chemistry (Fire Science)	3	3	3	3
5.255	Rescue and Emerg. 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 Science			3	5
	Elective			3	3
		17	15	15	

Sophomore Year

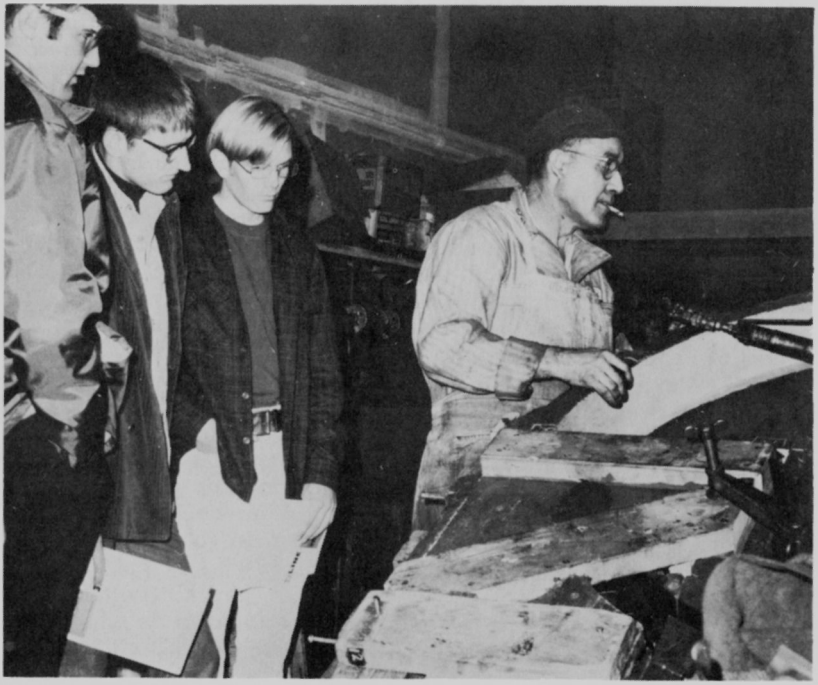
Course No.	Course Title	Credits F	W	S	Hrs /wk
5.272	Fire Protection Systems	3			5
5.263	Hydraulics & Pump Operation	3			5
9.500	Elements of Supervision	3			3
4.300, 4.302, 4.304	Physics (Fire Science)	3	3	3	3
5.262	Fundamentals of Fire Protection		3		5
5.265	Fire Dept. Organ. & Management		3		3
5.240	Technical Report Writing			3	3

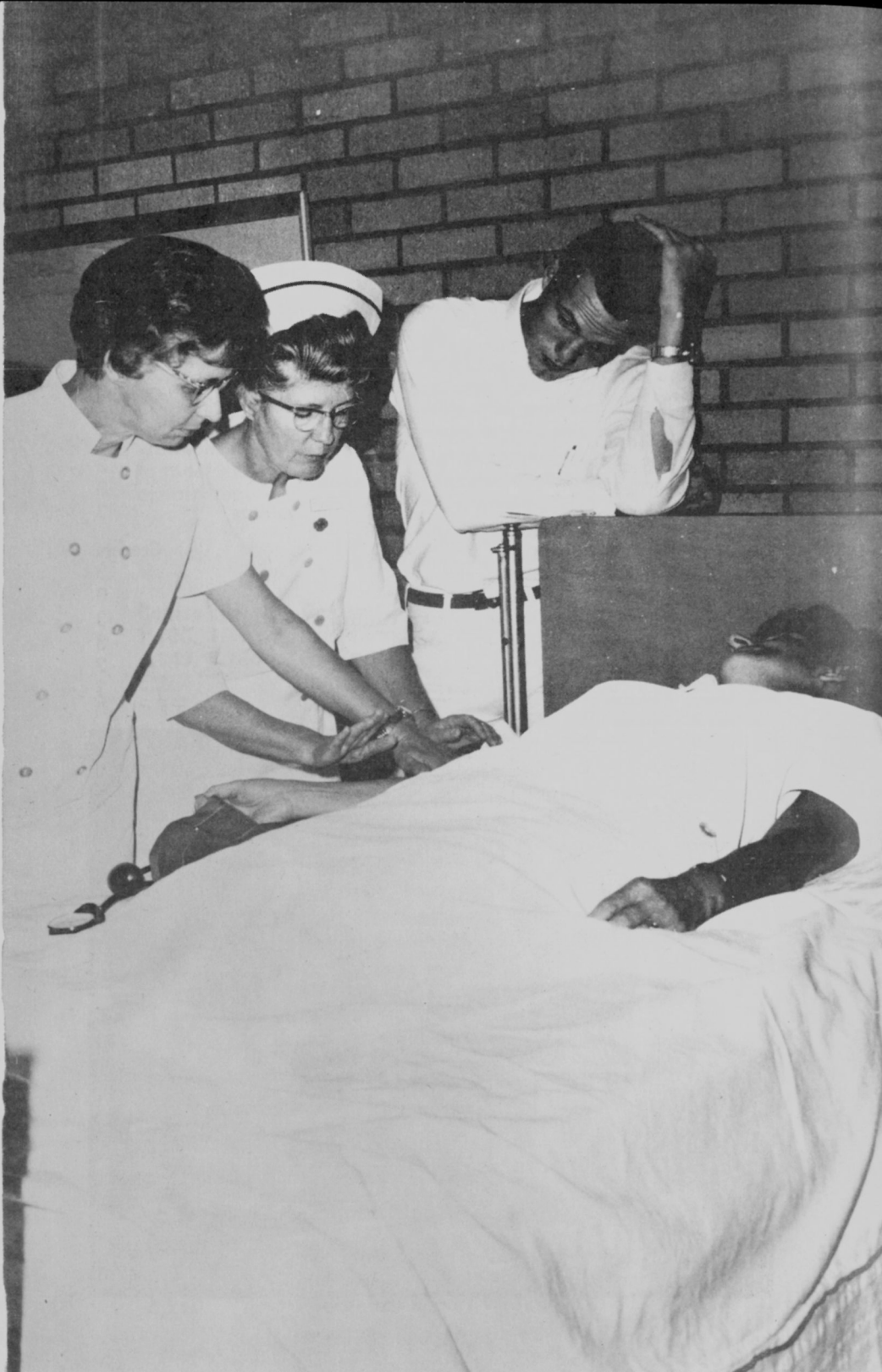
5.260, 5.261	Hazardous Materials I, II		3	3	3
5.273	Fire Investigation			3	3
	Electives	3	3	3	
		15	15	15	

Fire Prevention Electives		**Credits**
5.282	Codes and Ordinances	3
5.270	Fire Records and Reports	3
5.285	Legal Aspects of Fire Protection and Prevention	3
1.600	American Institutions	3
1.524	Applied Economics	3

Fire Suppression Electives		**Credits**
5.274	Fire Fighting Tactics and Strategy	3
5.258	Fire Company Organization & Station Assignments	3
5.252	Fire Fighting Skills III	3
5.269	Water Distribution Systems	3
5.267	Fire Dept. Communications & 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
1.600	American Institutions	3





Health Division

ASSOCIATE DEGREE NURSING

Plans for the development of an Associate Degree Nursing (ADN) program are underway and it is anticipated that the curriculum will be implemented in January, 1971. Students interested in the ADN program are urged to discuss this program with a counselor.

DENTAL ASSISTANT

Plans calling for the implementation of a one year program in Dental Assisting are currently underway. This program is expected to start in September of 1970.

NURSING ASSISTANTS, ORDERLIES AND AIDES

This course is designed to prepare students for employment as Nurses' Aides or Orderlies by hospitals or nursing homes, and is taught within local hospitals and health agencies.

Applicants must be between the ages of 18-62 and provide evidence of high school equivalency. They must be in good physical and mental health as determined by a doctor's examination, and they must have suitable personality and character traits necessary for this occupation. For admission, a personal interview will be required and a pre-test given. The final selection for admission to the program will be made by the Nursing Admissions Committee.

Theory of the course includes basic anatomy, basic physiology, nutrition, child care, care of medical, surgical, and elderly patients, care of patients in the home, first aid, some medical vocabulary and abbreviations.

Clinical experience is provided, and experience at the bedside of patients is provided under the supervision of the instructor, in the hospital and in nursing homes.

Personal interviews are scheduled with the instructor to help solve any difficulties, and to evaluate the student's progress.

The course is one term (250 hours), conducted five days a week, Monday through Friday, five hours per day from 8:45 to 2:45 with a 30-minute lunch period.

Registration Steps for Nurses' Aides Candidates

1. Fill out a **standard registration form.**
2. Ask your high school to send a copy of your transcript to Linn-Benton Community College Registrar. If you have a G.E.D. Certificate, present your certificate so that the college may make a duplicate copy.
3. Complete the standard **physical examination form.** These blanks are available from the Office of the Registrar.
4. Take the General Aptitude Test Battery at your local Oregon State Employment Office. Results of this test should be forwarded to Linn-Benton Community College, Records and Admissions Office.
5. Make an appointment with the Registrar of Linn-Benton Community College and the Nursing Instructor for an interview.

Industrial Division

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 second year of the program.

Freshman Year

Course No.	Course Title	Credits F	W	S	Hrs /wk
3.334	Internal Combustion Engines	4			8
3.335	Automotive Electricity*		4		8
3.308	Fundamentals of Auto Electricity (one term required)	3			3
4.100	Blueprint Reading & Sketching	2			4
4.151, 4.152	Welding I, II	2	2		4
3.370	Automotive Brakes			3	6
3.350	Service Selling Principles & Techniques			3	3
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			3
1.104	Communication Skills II		3		3
3.364	Fuels and Carburetion*		3		6
		15	16	16	

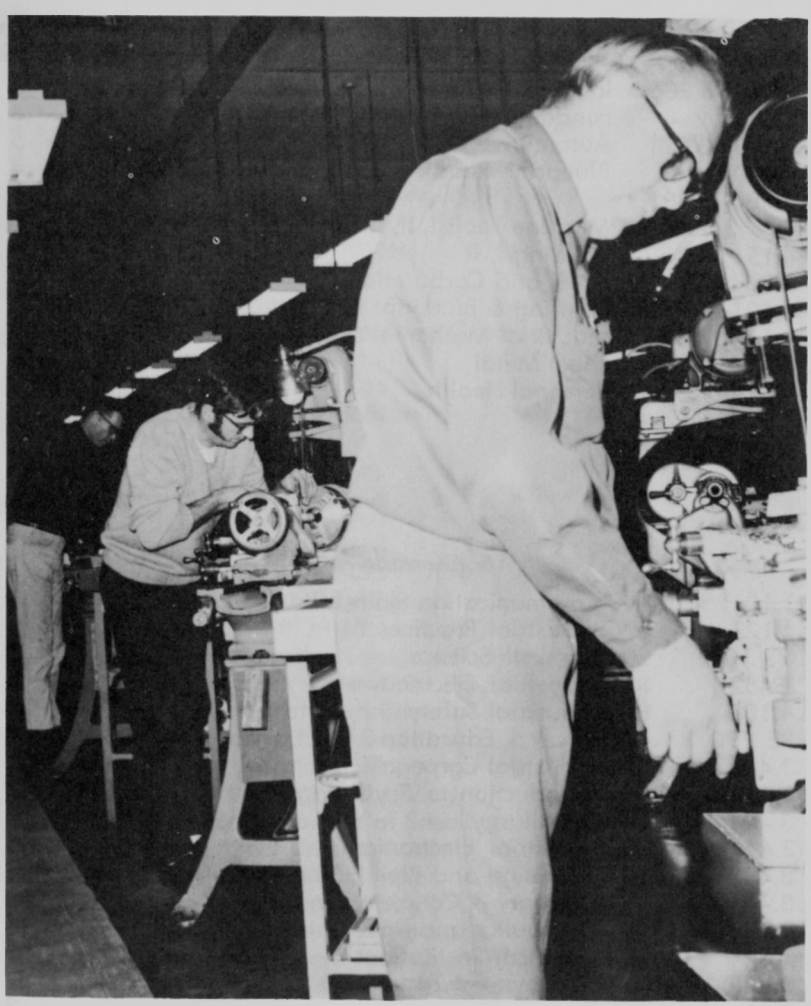
*Prerequisite to Tune-up and Diagnosis

Sophomore Year

3.290	Chassis I	3			6
3.292	Chassis II		3		6
3.278	Transmissions I	3			6
3.280	Transmissions II**		3		6
3.360	Auto Machine Shop**	3			6
3.329	Auto Repair Practices I†		3		7
3.331	Auto Repair Practices II†			3	7
3.332	Auto Service Management	2			2
3.375	Heat Exchanges & Air Control**			3	6
3.425	Employment 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
1.124	American Institutions		3		3
1.606	Introduction to Psychology	3			3

Elective	3		5
	17	16	16

**Second year or trade oriented students only
†Taken in sequence upon completion of all other mechanics courses.



INDUSTRIAL MECHANICS

A student may elect to take a two-year program in Industrial Mechanics. This is a curriculum which combines courses in several areas of the industrial curriculum. Individuals who complete this Associate Degree program may work as troubleshooters, millwrights and mechanics for industry and government, as well as business.

Freshman Year

Course No.	Course Title	Credits F	W	S	Hours Per Wk
3.304, 3.306	Internal Combustion Engines I, II	3	3		5
3.308	Fundamentals of Auto Electricity	3			3
3.310, 3.311	Automotive Electricity I, II	3	3		5
4.100	Blueprint Reading & Sketching	2			4
3.380, 3.381, 3.382	Machine Tools I, II, III	3	3	3	6
4.151, 4.152	Welding I, II	2	2		4
3.364	Fuels and Carburetion			3	5
4.101, 4.105	Drafting & Blueprint I, II		2	2	4
4.145, 4.146	Industrial Mathematics I, II		3	3	3
3.458	Sheet Metal			3	5
HE 250	Personal Health			2	2
		16	16	16	

Sophomore Year

1.101, 1.104	Communication Skills I, II	3	3		3
4.127	Industrial Practices I	3			5
GS 104	Physical Science	4			5
3.462	Industrial Electricity	3			5
4.108	Industrial Safety	2			2
PE 190	Physical Education	1	1	1	3
3.440	Industrial Carpentry		3		5
1.606	Introduction to Psychology		3		3
3.444	Metallurgy		4		6
3.448	Industrial Electronics		3		5
3.452	Plumbing and Pipe Fitting			3	5
3.455	Masonry & Concrete Fund.			3	5
3.295	Hydraulics and Pneumatics			3	5
1.124	American Institutions			3	3
3.425	Employment Techniques			1	1
9.500	Elements of Supervision			3	3
		16	17	17	

Total—98 Credits

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 second year of the program.

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
4.128	Drafting Practices		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	
		15	16	16	

Sophomore Year

4.119	Machine Drafting	4			8
4.122	Strength of Materials	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
4.120	Fundamentals of Specifications		3		3
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 Techniques			1	1
HE 250	Personal Health			2	2
	Electives		2	2	
Total—94 Credits		16	15	16	

ENVIRONMENTAL CONTROL TECHNOLOGY

The 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.

Freshman Year

Course No.	Course Title	Credits F	W	S	Hrs /wk
6.101, 6.102	Intro. to Environmental Control I, II	4	4		6
0.668, 0.669	Basic Math I, II	3	3		3
4.300, 4.302, 4.304	Practical Physics I, II, III	4	4	4	5
4.101, 4.105	Drafting and Blueprint I, II	2	2		4
1.101, 1.104	Communication Skills I, II	3	3		3
6.110	Basic Hydraulics for Water & Wastewater			4	6
1.110	Elements of Algebra			3	4
1.112	Technical Report Writing			3	3
6.115	Microbiology for Environmental Control			4	8
		16	16	18	

Sophomore Year

Ch 101, 102	General Chemistry I, II	3	3		4
6.203	Sanitary Chemistry			4	8
6.207, 6.208	Water Supply & Wastewater Control I, II	3	3		5
6.211	Surveying	4			8
1.524	Applied Economics	3			3
1.606	Intro. to Psychology & Human Relations	3			3
6.215	Wastewater Treatment		3		5
6.220	Instrumentation and Controls		4		6
1.500	Employer-Employee Relations		3		3
6.225	Water Purification			4	6
6.230	Contracts, Specifications, Codes, Estimates & Costs			4	6
1.124	American Institutions			3	3
	Elective, Physical Education or Personal Health Recommended			3-4	4-5
Total—100-101 Credits		16	16	18-19	

WATER & WASTEWATER OPERATOR PROGRAM

LBCC, in cooperation with several other agencies, also offers a 44-week program to train operators for municipal or industrial treatment plants. For further information regarding this special program contact the LBCC office of Student Personnel Services.

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. The methods of the American Society for Testing Materials for sample preparation and analysis are followed when practicable. The recording and reporting of test results are an essential part of the program.

The student may follow a diploma program, or he may select individual courses provided he has the prerequisites. (During the 1970-71 academic year LBCC proposes to offer portions of this program through the evening college.)

Freshman Year

Course No.	Course Title	Credits F	W	S	Hrs /wk
4.101	Drafting & Blueprint I	2			4
1.101, 1.104	Communication Skills I, II	3	3		3
4.151	Welding I			2	4
Ch 201, 202, 203	General Chemistry	4	4	4	6
4.300, 4.302, 4.304	Practical Physics	4	4	4	5
4.145, 4.146	Industrial Mathematics	3	3		3
4.120	Fundamentals of Specifications			3	5
1.110	Elements of Alegbra			3	3
	Technical Elective		3		
		16	17	16	

Sophomore Year

3.448	Industrial Electronics		3		5
9.500	Elements of Supervision			3	3
3.462	Industrial Electricity	3			5
4.108	Industrial Safety			2	2
4.138	Statistical Quality Control			2	3
4.320	Analytical Chemistry	3			5
4.125	Materials Testing	2	2	2	4
4.122	Strength of Materials		3		5
3.425	Employment Techniques			1	1
4.127	Industrial Practices I	3			5
6.293	Introduction to Metallurgy	3			5
6.294	Process Metallurgy		3		5
6.298	Metallography			3	7
	Technical Electives	3	5	3	
Total—98 Credits		17	16	16	

Suggested Technical Electives

6.337	Slide Rule
BA 101	Introduction to Business
BA 211	Principles of Accounting
5.260	Hazardous Materials
3.295	Hydraulics and Pneumatics
3.380	Machine Tools I
1.112	Technical Report Writing
4.123	Technical Illustration
9.500	Elements of Supervision
1.610	Public Speaking
6.288	Vacuum Technology
6.295	Production Technology
6.296	In-Plant Study

SUPERVISORY TRAINING

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

There are three options which the student may follow. One requires the completion of four approved courses plus two electives for 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 Supervisory 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	6
	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.	15

Associate in Science Degree*

	(90 quarter hours)	Credits
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 39

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
Personnel Management for Supervisors
Methods Improvement (Work Simplifications)
Organization and Management
Cost Control
Written Communications
Job Analysis for Wage Administration
Safety Training and Fire Prevention
Leadership Seminar

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.

WELDING

(one-year certificate)

Welding is taught at Linn-Benton Community College as a one-year program consisting of three quarters.

Classes and laboratory time are provided to develop a broad range of skills and related job information as required for successful employment in various job shops, auto production and maintenance shops.

Following completion of the course, the student will be awarded a certificate. Successful completion of this curriculum prepares the student for job opportunities in a great range of applications of welding processes.

Fall Term

Course No.	Course Title	Credits F	W	S	Hrs /wk
4.242	Basic Oxyacetylene Welding	4			8
4.240	Basic Arc 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 Arc Welding		6		14
4.245	Layout Procedures for Welding		2		4
4.146	Industrial Math II		3		3
			15		

Spring Term

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

OCCUPATIONAL LAW ENFORCEMENT

The Police Science curriculum is designed primarily for men and women employed in the various law enforcement agencies within the area. It provides opportunities for those persons engaged in Law Enforcement occupations to obtain further training for additional competency or retraining that will help them qualify for advancement.

The curriculum, which leads to an Associate in Science Degree, has been developed cooperatively by the State Department of Vocational Education and the State Advisory Board on Police Standards and Training. The program of studies covers basic police science knowledge, skills and technique.
First year only: Second year may be taken at another community college.

Course No.	Course Title	Credits F	W	S	Hours per wk
5.200	Introduction to Law Enforcement	3			3
5.202	Administration of Justice	3			3
5.204, 5.206	Defensive Tactics I, II	1	1		2
5.212, 5.213	First Aid I, II	1	1		2
1.101, 1.104	Communication Skills I, II	3	3		3
2.501, 2.502	Typing I, II	2	2		4
5.208	Criminal Law I		3		3
5.210	Traffic Control			3	3
5.240	Police Report Writing			3	3
5.214	Emergency Care and Rescue			1	2
1.606	Introduction to Psychology			3	3
	Electives			6	
		16	13	16	

Total — 45 Credits

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.


JUNIOR
TEEN
PETITE

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

Pre-Registration is encouraged whenever possible. This can be by mail, telephone, in class, or at the Linn-Benton Community College office. Call Adult Education, 926-6035 for specific information regarding classes.

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

Tuition is based on 30 hours of instruction for $12.00; however, additional fees may be charged as a laboratory fee for materials and supplies.

COURSE OFFERINGS

Agriculture course offerings will be directed primarily to the interest of specialized groups. Examples are commercial farmers, their families, their 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, Home Landscaping, Home Management, Knitting, Cake Decorating, Upholstery, 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.

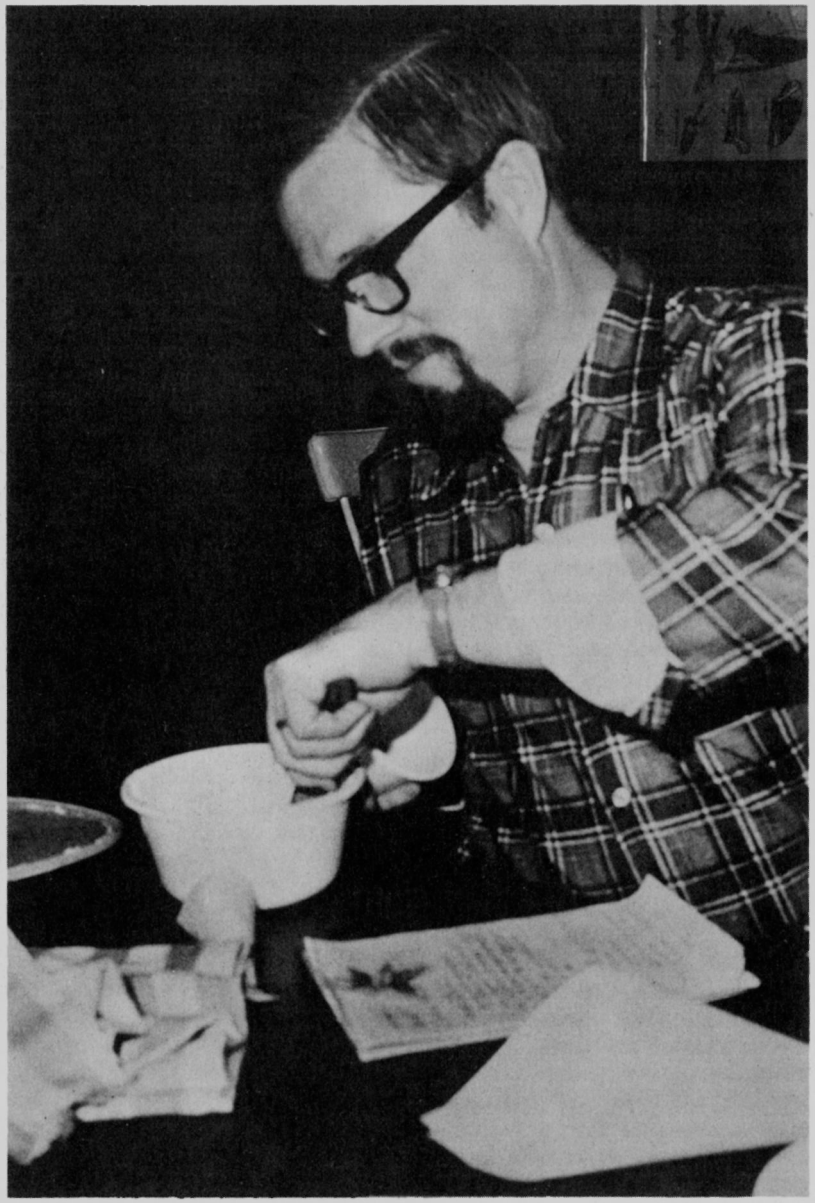
These classes will be free to the participants, and will consist largely of basic instruction in reading, writing, and arithmetic.

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 of work 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 Curricular Patterns

The following pages contain important information for those who plan to transfer to a four-year college or university following one or two years at the community college.

Linn-Benton Community College offers most of the lower division courses required by colleges and universities in many fields. All work taken at the community college which follows the curricular patterns of the four-year institutions is transferable. However, students are cautioned to familiarize themselves with the requirements of the institution to which they plan to transfer. Students are also encouraged to discuss the requirements with a counselor, and contact the four-year college when problems arise.

In this section of the Linn-Benton Community College catalog are listed the current general requirements for most major fields in Oregon colleges and universities. It is suggested that electives be selected which will strengthen the students' major interests and meet the requirements of the university to which they plan to transfer.

This section concentrates on the general requirements for many major fields for transfer to Oregon colleges and universities and since it is not possible to list the over 50 separate majors one might pursue in institutions in this state, students are encouraged to contact counselors for details on majors not listed on the following pages.

Electives should be selected from: Language Arts, Creative Arts, Social Science, Science and Mathematics and in some cases General Business.

Students should refer to the Course Descriptions section for specific contents of courses listed in this section.

The courses listed in this section and their instructors have been approved by the Oregon State System of Higher Education. Courses marked with an asterisk (*) will not be offered during the 1970-71 college year.

AGRICULTURE

(Oregon State University)

Freshman Year

Course No.	Course Title	F	W	S
Wr 111, 112	English Composition	3	3	
Ch 104, 105, 106 or *Ch 201, 202, 203	General Chemistry	4-5	4	4
Mth 101, 102, 200	College Alg, Trig, Calc.	4	4	4
PE 180 or 190	Physical Education	1	1	
HE 250	Personal Health			2
Sp 111	Fundamentals of Speech			3
	Electives	3	3	3
		15-16	15	16

Sophomore Year

Bi 101, 102, 103 or *211, 212, 213	General Biology	4-5	4-5	4-5
Ph 201, 202, 203	General Physics	4	4	4
Ec 201, 202, 203	Principles of Economics	3	3	3
PE 180 or 190	Physical Education	1	1	1
	Electives	3	3	3
		15-16	15-16	15-16

Total — 93 Hours
*Will not be offered in 1970-71.

ANTHROPOLOGY

Freshman Year

Course No.	Course Title	F	W	S
Wr 111, 112	English Composition and elective	3	3	3
Anth 101, 102, 103	General Anthropology	3	3	3
Bi 101, 102, 103	General Biology	4	4	4
	First-year foreign lang. or Literature sequence	3-4	3-4	3-4
PE 180 or 190	Physical Education	1		1
HE 250	Personal Health		2	
		14-15	15-16	14-15

Sophomore Year **(Anthropology)**

Course No.	Course Title	F	W	S
	Second-year foreign language or electives	4	4	4
	Second science sequence	3-4	3-4	3-4
	Social science sequence	3	3	3
	Literature sequence (if not taken in freshman year) or Second humanities sequence	3	3	3
PE 180 or 190	Physical Education	1	1	1
	Electives to bring total hours to 93	0-3	0-3	0-3
		14-17	14-17	14-17

Total — 93 Hours

ARCHITECTURE, INTERIOR ARCHITECTURE, AND LANDSCAPE ARCHITECTURE
(One Year)

Freshman Year

Course No.	Course Title	F	W	S
Wr 111	English Composition	3		
Hst 101, 102, 103	History of Western Civilization	3	3	3
Mth 101 and above	Mathematics (all students who have not completed mathematics through Trigonometry in high school),	4	4	4
Science Sequence	or For students not required to take mathematics			
Art 291	Drawing	2	2	2
Art 201, 202, 203	Survey of Visual Arts	3	3	3
PE 180 or 190	Physical Education	1		1
HE 250	Personal Health		2	
	Basic Design or Electives	2-3	2-3	2-3
		18-19	16-17	15-16

Total — 49-52 Hours

ART

Freshman Year

Course No.	Course Title	F	W	S
Wr 111, 112	English Composition	3	3	
	Science or Mathematics sequence	3-4	3-4	3-4
	Social Science sequence or foreign language	3-4	3-4	3-4
Art 291 sequence	Drawing (U of O)	2	2	2
Art 195, 196, 197	Basic Design	2	2	2
Art 290 sequence	Painting	2	2	2
PE 180 or 190	Physical Education	1		1
HE 250	Personal Health		2	
	Elective			3
		16-18	17-19	16-18

Sophomore Year

	Literature sequence	3	3	3
	Social Science sequence	3	3	3
	Second Science sequence or foreign language	3-4	3-4	3-4
Art 290 sequence	Painting	2	2	2
Art 201, 202, 203	Survey of Vis. Arts	3	3	3
PE 180 or 190	Physical Education	1	1	1
		15-16	15-16	15-16

Total — 94 Hours

BIOLOGY (UO, PSU, EOC, SOC)
BOTANY, ENTOMOLOGY, MICROBIOLOGY, ZOOLOGY, BIOLOGY (GENERAL SCIENCE) (OSU)

Freshman Year

Course No.	Course Title	F	W	S
Wr 111, 112, 113**	English Composition	3	3	3**
Mth 200, 201, 202	Calculus with Analytic Geometry	4	4	4
Ch 104, 105, 106 or *Ch 102, 202, 203	General Chemistry	4-5	4	4
Ch 201, 202, 203	General Chemistry	4	4	4
	Humanities or social science sequence	3	3	3
PE 180 or 190	Physical Education	1		1
HE 250	Personal Health		2	
		15-16	16	15

*Will not be offered in 1970-71.
**OSU only

Sophomore Year **(Biology-Gen. Sci.)**

Course No.	Course Title	F	W	S
*Bi 211, 212, 213	Biology	5	5	5
*Ch 226, 227	Organic Chemistry	5	5	
	Social Science or Humanities sequence	3	3	3
PE 180 or 190	Physical Education	1	1	1
	Electives to bring total hours to 93	2	2	6
		16	16	15

**OSU only
*Will not be offered in 1969-70.
Total — 93 Hours

BUSINESS ADMINISTRATION

Freshman Year

Course No.	Course Title	F	W	S
BA 101	Introduction to Business	4		
Sp 111	Fundamentals of Speech		3	
	Mathematics	4	4	4
Wr 111, 112	English Composition	3	3	
	Social Science sequence	3	3	3
PE 180 or 190	Physical Education	1		1
HE 250	Personal Health		2	
	Electives			6-7
		15	15	14-15

Sophomore Year

Ec 201, 202, 203	Principles of Economics	3	3	3
BA 211, 212, 213	Principles of Accounting	3	3	3
BA 226	Business Law		3	
BA 232	Int. to Business Statistics			3
	Lit. or Science sequence	3-4	3-4	3-4
	Electives	3-6	3	3
	Physical Education	1	1	1
		13-17	16-17	16-17

Total — 93 Hours

BUSINESS EDUCATION

See Page 84 for Business Education

COMMUNITY SERVICE AND PUBLIC AFFAIRS

Freshman Year

Course No.	Course Title	F	W	S
Wr 111, 112	English Composition	3	3	
PE 180 or 190	Physical Education	1	1	1
	Literature sequence	3	3	3
Soc 204, 205, 206	General Sociology	3	3	3
PS 201	American Governments	3		
PS 205	International Relations			3
HE 250	Personal Health		2	
	Electives	2-3	2-3	5-6
		15-16	14-15	15-16

Sophomore Year

PE 180 or 190	Physical Education	1	1	
Psy 201, 202, 203	General Psychology	3	3	3
	Science sequence (with laboratory or 12 hours of math numbered 101 or above)	4	4	4
Ec 201	Principles of Economics	3		
Anth 101, 102, 103	General Anthropology (any term)		3	
BA 232	Introduction to Business Statistics			3
	Elective	4-5	4-5	4-5
		15-16	15-16	14-15

Total — 93 Hours

DENTISTRY (Preprofessional Program)

The curriculum outlined below has been approved by the University of Oregon Dental School and the colleges and universities in the Oregon State System of Higher Education offering predental curricula as suitable for Oregon community college students interested in predentistry.

Admission to professional schools of dentistry is **highly competitive.** Students are advised to devote a minimum of three years to their preprofessional education. Students beginning a predentistry program at a community college should plan to transfer to an accredited, four-year institution experienced in predental education upon completion of their freshman year.

Freshman Year

Course No.	Course Title	F	W	S
Wr 111, 112, 113**	English Composition	3	3**	3**
Ch 104, 105, 106 or *Ch 201, 202, 203	General Chemistry	4-5	4	4
Mth 101	College Algebra	4		
Mth 102	Trigonometry		4	
Mth 200	Calculus with Analytic Geometry			4
	Social Science sequence	3	3	3
PE 180 or 190	Physical Education	1		1
HE 250	Personal Health		2	
		15-16	16	15

**OSU only

Total — 46 Hours

*Will not be offered in 1970-71.

EDUCATION (Elementary)

Freshman Year

Course No.	Course Title	F	W	S
Wr 111, 112	English Composition	3	3	
Mth 191, 192, 193	Mathematics for Elementary Teachers	3	3	3
GS 104, 105, 106	Physical Science	4	4	4
	Literature sequence	3	3	3
PE 180 or 190	Physical Education	1		1
HE 250	Personal Health		2	
	Elective			3
		14	15	14

Sophomore Year

Psy 201, 202	General Psychology	3	3	
Sp 111	Fundamentals of Speech			3
Hst 201, 202, 203	History of the U.S. (UO, OSU, SOC, EOC)			
Hst 101, 102, 103	History of Western Civilization (OCE)	3	3	3
Bi 101, 102, 103	General Biology			
Geog 105, 106, 107	Introductory Georgraphy	3	3	3
PE 180 or 190	Physical Education	3	3	3
	*Electives to bring total hours to 93	1	1	1
		2-3	2-3	2-3
		15-16	15-16	15-16

Total — 93 Hours

*Ed 207 or Ed 209 may be included as electives.

Note: Students planning to transfer to SOC or PSU should see counselor for additional information.

EDUCATION (Secondary)

Students planning to become high school teachers should enroll in the transfer program for the subject they plan to teach, being sure to include Psy 201, 202 General Psychology and Sp 111 Fundamentals of Speech. Students planning to teach social studies should complete the transfer program in general social science. Admission to the professional program in education is based on several qualifications—academic, personal, social and ability to speak and write adequately. Application for admission should be made immediately upon transfer to the four-year institution.

Freshman Year

(For individuals not ready for advanced math and science)

Course No.	Course Title	F	W	S
Mth 95	Intermediate Algebra	4		
Mth 101	College Algebra		4	
Mth 102	Trigonometry			4
Ch 201, 202, 203	General Chemistry	4	4	4
Wr 111, 112, 113	English Composition	3	3	3
	Elective (social science)	3	3	3
PE 180 or 190	Physical Education	1	1	
HE 250	Personal Health			2
		15	15	16

Sophomore Year

(Regular first year)

*GE 101, 102, 103	Engineering Orientation	2	2	2
Mth 200, 201, 202	Calculus with Analytic Geometry	4	4	4
*Ph 207, 208, 209	Intro Classical Physics	4	4	4
	Social Science or Humanities sequence	3	3	3
PE 180 or 190	Physical Education	1	1	1
	Electives to bring total hours to 93	0-3	0-3	0-3
		14-17	14-17	14-17

Total—93 Hours

Note: A student may combine courses from the above first and second year curriculum in a one-year Engineering program.

*Will not be offered in 1970-71.

FORESTRY

Freshman Year—Preforestry

Course No.	Course Title	F	W	S
Bi 101, 102, 103	General Biology	4	4	4
Ch 104, 105, 106 or *Ch 201, 202, 203	General Chemistry	4-5	4	4
Mth 101‡	College Algebra	4-3		
Mth 102‡	Trigonometry		4	
Mth 200‡	Calculus with Analytic Geometry			4
Wr 111, 112, 113	English Composition	3	3	3
PE 180 or 190	Physical Education	1		1
HE 250	Personal Health		2	
		15-17	17	16

Total — 48-49 Hours

‡Students should enroll in mathematics at level recommended by counselor. Mathematics through 201 required.

*Will not be offered in 1970-71.

GENERAL ARTS AND LETTERS (U of O)

Freshman Year

Course No.	Course Title	F	W	S
Wr 111, 112	English Composition	3	3	
	Literature sequence (English literature recommended)	3	3	3
	First year foreign language or Soc. Sci. sequence	3-4	3-4	3-4
	Science sequence (with lab or 12 cr. hours of math numbered 101 or above)	4	4	4
PE 180 or 190	Physical Education	1		1
HE 250	Personal Health		2	
	Elective			3
		14-15	15-16	14-15

Sophomore Year **(Gen. Arts & Letters)**

Course No.	Course Title	F	W	S
Psy 201, 202, 203	General Psychology or Social Science	3	3	3
Hst 101, 102, 103	History of Western Civilization or	3	3	3
	Social Science or Science sequence	3-4	3-4	3-4
Eng 253, 254, 255	American Literature	3	3	3
	Second year foreign language or Science sequence	3-4	3-4	3-4
Select one:				
*Eng 201, 202, 203	Shakespeare			
Mus 201, 202, 203	Introduction to Music and Its Literature			
Art 201, 202, 203	Survey of the Visual Arts	3	3	3
PE 180 or 190	Physical Education	1	1	1
	Electives (philosophy or social science)	2	2	2
		15-16	15-16	15-16

Total — 93 Hours

GENERAL SCIENCE or GENERAL STUDIES IN SCIENCE

Freshman Year

Course No.	Course Title	F	W	S
Wr 111, 112	English Composition	3	3	
	Literature sequence	3	3	3
	Mathematics	4	4	4
Ch 104, 105, 106 or *Ch 201, 202, 203	General Chemistry	4-5	4	4
Bi 101, 102, 103	General Biology	4-5	4	4
PE 180 or 190	Physical Education	1		1
HE 250	Personal Health		2	
	Elective			3
		15	16	15

*Will not be offered in 1970-71.

(Gen. Science) **Sophomore Year**

Course No.	Course Title	F	W	S
	Social Science sequence	3	3	3
Select two:				
Ch 104, 105, 106 or *Ch 201, 202, 203	General Chemistry	4-5	4	4
*Ch 101, 102, 103	General Chemistry	3-5	3-4	3-4
Bi 101, 102, 103	General Biology	4-5	4	4
*Ph 201, 202, 203 *G 201, 202, 203	General Physics or Geology	3-4	3-4	3-4
	Foreign language or second Humanities sequence	3-4	3-4	3-4
PE 180 or 190	Physical Education	1	1	1
	Electives to bring hours to 93	0-3	0-3	0-3
		15-17	15-16	15-16

Total — 93 Hours

*Will not be offered in 1970-71.

GENERAL SOCIAL SCIENCE

Freshman Year

Course No.	Course Title	F	W	S
Wr 111, 112	English Composition	3	3	
	Literature sequence	3	3	3
	Science sequence (with lab or 12 hours of math numbered 101 and above)	3-4	3-4	3-4
	History sequence	3	3	3
PE 180 or 190	Physical Education	1		1
HE 250	Personal Health		2	
	Elective	2		3-5
		15-16	14-15	13-15

Sophomore Year **(Gen. Soc. Sci.)**

Course No.	Course Title	F	W	S
	Second Humanities or Science sequence	3-4	3-4	3-4
	Social Science sequences (select three different: Anthropology, Sociology Economics, Geography, Political Science, Psychology)	9	9	9
PE 180 or 190	Physical Education	1	1	1
	Electives to bring total to 93 hours	2-3	2-3	2-3
		15-17	15-17	15-17

Total — 93 Hours

GEOGRAPHY

Freshman Year

Course No.	Course Title	F	W	S
Wr 111, 112	English Composition	3	3	
Geog 105, 106, 107	Introductory Geography	3	3	3
Bi 101, 102, 103	General Biology	4	4	4
	First year foreign lang. or Mathematics thru Math 200	4	4	4
PE 180 or 190	Physical Education	1		1
HE 250	Personal Health		2	
	Elective			3
		15	16	15

Sophomore Year

*Ch 101, 102, 103	General Chemistry or	4	4	4
*Ch 201, 202, 203	General Chemistry			
*G 201, 202, 203	Geology with lab	4	4	4
	Social Science sequence	3	3	3
	Literature sequence or second year foreign language or social science sequence	3-4	3-4	3-4
PE 180 or 190	Physical Education	1	1	1
		15-16	15-16	15-16

Total — 93 Hours

*Will not be offered in 1970-71.

GEOLOGY

Freshman Year

Course No.	Course Title	F	W	S
Wr 111, 112	English Composition	3	3	
	Literature sequence	3	3	3
	Mathematics	4	4	4
Ch 104, 105, 106 or *Ch 201, 202, 203	General Chemistry	4-5	4	4
PE 180 or 190	Physical Education	1		1
HE 250	Personal Health		2	
	Elective			3
		15-16	16	15

Sophomore Year

Ph 201, 202, 203	General Physics	4	4	4
*G 201, 202, 203	Geology with lab	4	4	4
PE 180 or 190	Physical Education	1	1	1
	Electives to bring total hours to 93	6-7	6-7	6-7
		15-16	15-16	15-16

Total — 93 Hours
*Will not be offered in 1970-71.

HISTORY

Freshman Year

Course No.	Course Title	F	W	S
Wr 111, 112	English Composition	3	3	
Hst 101, 102, 103	History of Western Civilization	3	3	3
	Science sequence (with lab, or 12 hours of math)	3-4	3-4	3-4
	Foreign language or Humanities sequence	3-4	3-4	3-4
PE 180 or 190	Physical Education	1		1
HE 250	Personal Health		2	
	Electives	0-2	0-2	3-5
		15	16	15

Sophomore Year **(History)**

Course No.	Course Title	F	W	S
Hst 201, 202, 203	History of the U.S.	3	3	3
	Literature sequence	3	3	3
	Second Science sequence	3-4	3-4	3-4
	Second Humanities sequence	3-4	3-4	3-4
	Second year foreign language or social science sequence other than history	3-4	3-4	3-4
PE 180 or 190	Physical Education	1	1	1
		16-18	16-18	16-18

Total — 93 Hours

LAW (Preprofessional Program)

Freshman Year

Course No.	Course Title	F	W	S
Wr 111, 112, 113	English Composition	3	3	3
Hst 101, 102, 103	History of Western Civilization	3	3	3
	Literature sequence	3	3	3
	Science sequence	3-4	3-4	3-4
PE 180 or 190	Physical Education	1		1
HE 250	Personal Health		2	
	Electives to bring total hours to 45	1-2		2
		15-16	14-15	15-16

Sophomore Year

BA 211, 212, 213	Principles of Accounting	3	3	3
PS 201, 202, 203	American Governments	3	3	3
Ec 201, 202, 203	Principles of Economics	3	3	3
Hst 201, 202, 203	History of the U.S.	3	3	3
	Electives	3	3	3
PE 180 or 190	Physical Education	1	1	1
		16	16	16

Total — 93 Hours

Note: See counselor for general requirements on acceptance to the University of Oregon Law School.

LAW ENFORCEMENT

Course No.	Course Title	F	W	S
	Freshman Year			
Wr 111, 112	English Composition	3	3	
Soc 204, 205, 206	General Sociology	3	3	3
	Humanities sequence	3	3	3
	Science sequence	4	4	4
PE 180 or 190	Physical Education	1		1
HE 250	Personal Health		2	
	Elective			3
		14	15	14
	Sophomore Year			
Psy 201, 202, 203	General Psychology	3	3	3
PS 201, 202, 203	American Governments	3	3	3
Hst 201, 202, 203	History of the U.S.	3	3	3
LE 111, 112, 113	Law Enforcement and Society	3	3	3
	Humanities sequence	3	3	3
PE 180 or 190	Physical Education	1	1	1
		16	16	16

Total — 91 Hours

MATHEMATICS

Course No.	Course Title	F	W	S
	Freshman Year			
Wr 111, 112	English Composition	3	3	
	Literature Sequence	3	3	3
	Foreign Language or Biological Science sequence	4	4	4
	Mathematics	4	4	4
PE 180 or 190	Physical Education	1		1
HE 250	Personal Health		2	
	Elective			3
		15	16	15
	Sophomore Year			
	Mathematics	4	4	4
	Second year Foreign Language or Second Science sequence	4	4	4
	Social Science sequence	3	3	3
PE 180 or 190	Physical Education	1	1	1
	Electives to bring total hours to 93	3-4	3-4	3-4
		15-16	15-16	15-16

Total — 93 Hours

MEDICAL TECHNOLOGY (Preprofessional Program)

The curriculum outlined below has been approved by the University of Oregon Medical School and the colleges and universities in the Oregon State System of Higher Education offering curricula for students interested in medical technology.

Admission to professional schools of medical technology is **competitive.** Preprofessional studies must include stipulated courses in the basic sciences and general education courses required for a baccalaureate degree. The pre-professional program is three years in length. Students beginning the pre-professional program at a community college should plan to transfer to an accredited, four-year institution upon completion of the freshman year.

Freshman Year

Course No.	Course Title	F	W	S
Wr 111, 112** 113**	English Composition	3	3**	3**
Ch 104 ,105 ,106 or *Ch 201, 202, 203	General Chemistry	4-5	4	4
Mth 95‡	Intermediate Algebra	4		
Mth 101‡	College Algebra		4	
Mth 102‡	Trigonometry			4
	Social Science sequence	3	3	3
PE 180 or 190	Physical Education	1		1
HE 250	Personal Health		2	
		15-16	16	15

Total — 46 Hours

**OSU only

‡Students should enroll in mathematics at level recommended by counselor.

*Will not be offered in 1970-71.

MEDICINE (Preprofessional Program)

The curriculum outlined below has been approved by the University of Oregon Medical School and the colleges and universities in the Oregon State System of Higher Education offering premedical curricula as suitable for Oregon community college students interested in premedicine.

Admission to professional schools of medicine is **highly competitive.** Pre-professional studies must include stipulated courses in the basic sciences and general education courses required for a baccalaureate degree. A minimum of three years is required to complete the preprofessional program. Many students complete four years of study before applying for admission to a medical school.

Students beginning a premedical program at a community college should plan to transfer to an accredited, four-year institution **experienced in premedical education** upon completion of the freshman year.

(Medicine) **Freshman Year**

Course No.	Course Title	F	W	S
Wr 111, 112** 113**	English Composition	3	3**	3**
Ch 104, 105, 106 or *Ch 201, 202, 203	General Chemistry	4-5	4	4
Mth 101‡	College Algebra	4		
Mth 102‡	Trigonometry		4	
Mth 200‡	Calculus with Analytic Geometry			4
	Humanities or Social Science sequence	3	3	3
PE 180 or 190	Physical Education	1		1
HE 250	Personal Health		2	
		15-16	16	15

Total — 46 Hours

**OSU only

‡Students should enroll in mathematics at level recommended by counselor. Mathematics through Calculus 202 is required.

NURSING (Preprofessional Program)

Course No.	Course Title	F	W	S
Wr 111, 112, 113	English Composition	3	3	3
Ch 104, 105, 106 or *Ch 102, 202, 203	General Chemistry	4-5	4	4
	Literature sequence	3	3	3
	Social Science sequence	3	3	3
*HEc 225	Nutrition			3
Sp 111	Fundamentals of Speech	3		
PE 180 or 190	Physical Education	1	1	1
	Elective (Social Science recommended)		3	
		16-18	16	16

Total — 48 Hours

Note: See counselor for requirements for admission to 4-year schools of nursing.

*Will not be offered in 1970-71.

PHARMACY (Preprofessional Program)

The pharmacy curriculum at Oregon State University is four years of professional study during which time courses in the humanities and social sciences are also taken. A total of five academic years, with 240 quarter hours, is required for the bachelor's degree.

Freshman Year **(Pharmacy)**

Course No.	Course Title	F	W	S
Wr 111, 112, 113	English Composition	3	3	3
Bi 101, 102, 103	General Biology or			
*Z 201, 202, 203	General Zoology (OSU)	3-4	3-4	3-4
Mth 101	College Algebra	4		
Mth 102	Trigonometry		4	
Mth 200	Calculus with Analytic Geometry			4
Ch 104, 105, 106 or *Ch 201, 202, 203	General Chemistry	4-5	4	4
PE 180 or 190	Physical Education	1	1	
HE 250	Personal Health			2
		15-17	15-16	16-17

Total — 46-49 Hours

*Will not be offered in 1970-71.

Note: See counselor for requirements for admission to 4-year schools of pharmacy.

PHYSICAL EDUCATION

Health and Physical Education—One Year Preprofessional Program

Course No.	Course Title	F	W	S
Wr 111	English Composition	3		
Bi 101, 102, 103	General Biology	4	4	4
Ch 104, 105, 106 or *Ch 101, 102, 103 or *Ch 201, 202, 203	General Chemistry	4-5	4	4
	General Chemistry	3-5	3-4	3-4
	Literature sequence	3	3	3
PE 180 or 190	Physical Education	1	1	1
	Social Science electives		3	3
		14-16	14-15	14-15

Total — 42-45 Hours

*Will not be offered in 1970-71.

PHYSICS

The program outlined below is recommended for students who plan to transfer to a major program in physics at Oregon State University, the University of Oregon, Portland State University, or Southern Oregon College. Upon satisfactory completion of the two-year program outlined below, students should be ready to begin the **second** year of physics studies.

(Physics)

Freshman Year

Course No.	Course Title	F	W	S
Wr 111, 112	English Composition	3	3	
	Literature sequence	3	3	3
Mth 101, 102, 200	Mathematics Courses	4	4	4
Ch 104, 105, 106 or *Ch 201, 202, 203	General Chemistry	4-5	4	4
PE 180 or 190	Physical Education	1		1
HE 250	Personal Health		2	
	Elective			3
		15-16	16	15

Sophomore Year

Mth 201, 202, 203	Mathematics courses	4	4	4
*Ph 207, 208, 209	Introductory Classical Physics	4	4	4
	Social Science sequence	3	3	3
PE 180 or 190	Physical Education	1	1	1
	Electives to bring total hours to 93	3-4	3-4	3-4
		15-16	15-16	15-16

Total — 93 Hours

*Will not be offered in 1970-71.

POLITICAL SCIENCE

Freshman Year

Course No.	Course Title	F	W	S
Wr 111, 112	English Composition	3	3	
	Literature sequence	3	3	3
	Science or Math sequence	3-4	3-4	3-4
Hst 101, 102, 103	History of Western Civilization	3	3	3
PE 180 or 190	Physical Education	1		1
HE 250	Personal Health		2	
	Electives	2-3	2-3	3-5
		15-16	15-16	15-16

Sophomore Year (Pol. Sci.)

Course No.	Course Title	F	W	S
PS 201, 202, 203	American Governments	3	3	3
	Humanities sequence	3	3	3
	Second Science sequence	3-4	3-4	3-4
	Second Humanities sequence or Science sequence	3	3	3
PE 180 or 190	Physical Education	1	1	1
	Social Science sequence (History of the U.S., Economics, Geography, Sociology, or Anthropology)	3	3	3
		16-17	16-17	16-17

Total — 93 Hours

PSYCHOLOGY

Freshman Year

Course No.	Course Title	F	W	S
Wr 111, 112	English Composition	3	3	
	Literature sequence	3	3	3
	Science or Math sequence	3-4	3-4	3-4
	Social Science sequence	3	3	3
PE 180 or 190	Physical Education	1		1
HE 250	Personal Health		2	
	Electives	0-2	0-2	3-5
		15-16	15-16	15-16

Sophomore Year

Psy 201, 202, 203	General Psychology	3	3	3
	Second Science sequence	3-4	3-4	3-4
	Second Humanities sequence	3	3	3
PE 180 or 190	Physical Education	1	1	1
	Electives (additional science or social science; foreign language if planning to graduate work)	5-6	5-6	5-6
		15-16	15-16	15-16

Total — 93 Hours

SECRETARIAL SCIENCE — BUSINESS EDUCATION

The program outlined below is recommended for students who plan to transfer to a major program in secretarial science or business education.

Course No.	Freshman Year Course Title	F	W	S
Wr 111, 112	English Composition	3	3	
SS 111, 112, 113	Stenography	3	3	3
SS 121, 122, 123	Typing	2	2	2
BA 101	Introduction to Business	4		
	Literature or Science Sequence	3-4	3-4	3-4
PE 180 or 190	Physical Education	1		1
HE 250	Personal Health		2	
	Electives		2-3	5-6
		16-17	15-17	14-16
	Sophomore Year			
Ec 201, 202, 203	Principles of Economics	3	3	3
BA 211, 212, 213	Principles of Accounting	3	3	3
SS 211, 212, 213	Applied Stenography	3	3	3
PS 201	American Governments (Secretarial Science majors)	3		
Hst 203	History of the U.S. (Secretarial Science majors			3
Psy 201, 202	General Psychology (Business Ed. majors)	3	3	
Sp 111	Fundamentals of Speech (Business Ed. majors)			3
BA 224	Business Communications	3		
PE 180 or 190	Physical Education	1	1	1
	Electives		2-5	
		16	15-16	16

Total — 93 Hours

SOCIOLOGY

Course No.	Freshman Year Course Title	F	W	S
Wr 111, 112	English Composition	3	3	
	Literature sequence	3	3	3
	Science or Math sequence	3-4	3-4	3-4
	Social Science sequence (History of West. Civ. Recommended)	3	3	3
PE 180 or 190	Physical Education	1		1
HE 250	Personal Health		2	
	Electives	0-2		3-5
		15-16	15-16	15-16

Sophomore Year **(Sociology)**

Course No.	Course Title	F	W	S
Soc 204, 205, 206	General Sociology	3	3	3
Ec 201, 202, 203	Principles of Economics	3	3	3
	Second Science sequence	3-4	3-4	3-4
	Foreign lang. or second Humanities sequence or second Science sequence	3-4	3-4	3-4
PE 180 or 190	Physical Education	1	1	1
	Electives to bring total hours to 93	0-2	0-2	0-2
		15-16	15-16	15-16

Total — 93 Hours

SPEECH (UO, OSU)
SPEECH AND THEATER ARTS (PSU)

Freshman Year

Course No.	Course Title	F	W	S
Wr 111, 112	English Composition	3	3	
	Literature sequence	3	3	3
	First-year foreign language or Science or Math sequence	3-4	3-4	3-4
Sp 111, 112, 113	Fundamentals of Speech	3	3	3
PE 180 or 190	Physical Education	1		1
HE 250	Personal Health		2	
	Electives	2		5
		15-16	14-15	15-16

Sophomore Year

	Social science sequence	3	3	3
Sp 229	Interpretation	2		
	Second-year foreign language or Second humanities sequence	3-4	3-4	3-4
	Science sequence or Second social science sequence	3-4	3-4	3-4
PE 180 or 190	Physical Education	1	1	1
	Electives	0-4	3-6	3-6
		14-16	15-16	15-16

Total — 93 Hours

Course Description

AGRICULTURE

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.

8.122 Botany **2 class - 4 lab hrs/wk 4 credits**
A systematic study of plant diversity and interaction with the environment. The correlation between plant structure and function and the physiology of growth and development are major portions of the course.

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 3 credits**
The course deals with the use and chemistry of herbicides, insecticides, fungicides and nematocides. The types of ma-

terial, 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.

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

8.145 Feeds and Feeding **3 class hrs/wk 3 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 selection; 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 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.

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.

The following Evening courses are offered periodically to meet community needs.

BUSINESS

BA 101 Introduction to Business **4 class hrs/wk 4 credits**
A survey course in business with emphasis placed on organization, operation, and management. It is intended

to orient the student to the field of business and to help him determine his field of major concentration.

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

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

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.

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 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 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 solid foundation for further development of dictation and transcription skill.

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 in producing mailable letters. Personal qualifications covered.
Prerequisite: SS 112 or equivalent.

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 212 with emphasis on speed, accuracy and secretarial standards.

SS 121 Typing I **4 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.

SS 122 Typing II **4 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 technicalities.
Prerequisite: SS 121 or equivalent.

SS 123 Typing III **4 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: SS 122 or equivalent.

SS 124 Typing Skill Building **3 class hrs/wk 2 credits**
Speed, accuracy, figures and remedial techniques. Use of wide variety of special drills and electric typewriters.
Prerequisite: SS 121 or equivalent.

1.121 Poise, Posture and Personality **3 class hrs/wk 2 credits**
This course covers the principles of fashion, fashion cycles and fashion coordination. It also covers the study of line, design and color as they relate to clothing and accessories; the study of the individual silhouette in posture, walking and standing, stage and stair stance; grace in sitting,

Prerequisite: SS 111 or equivalent.

leaving and entering a room and car; hair care, shape and style most flattering to the person. Emphasis will be placed on personality.

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**
Course includes characteristics of the customer, buying motives, approach, presentation, demonstration, overcoming objections and excuses, closing the sale, and objective selling. Each student is given the opportunity to develop a sales approach and present and analyze a sales presentation.

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 organizations. 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 is 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 competition.

2.134 Retail Merchandising **3 class hrs/wk 3 credits**
A general survey of the principles of efficient store organization and management. Topics include location and layout, types of store organization, personnel management, operating activities, financial and budgetary control, coordinating policies, and store protection.

2.222 Financial Management **3 class hrs/wk 3 credits**
All aspects of understanding how to finance a business are discussed. Special emphasis on short—term and intermediate-term debt financing. The topic of "Funding from Operations" is also thoroughly developed.
Prerequisite: Sophomore standing or consent of the instructor.

2.308 Principles of Advertising **3 class hrs/wk 3 credits**
An introductory course explaining the role of advertising in the distributive process. Emphasis on various media; copy, illustration and layout; retail advertising and promotion; advertising budget; and an advertising program.
Prerequisite: Sophomore standing or consent of the instructor.

2.501 Typing I **4 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.

2.502 Typing II **4 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 technicalities.
Prerequisite: Typing 2.501 or equivalent.

2.503 Typing III **4 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 or equivalent.

2.504 Typing, Skill Building **3 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 or equivalent.

2.505 Typing IV **4 class hrs/wk 2 credits**
Theory and practice; drills of all kinds; punctuation and mechanical arrangements of business correspondence, legal forms, tabulating, manuscripts, modern business forms, straight copy timings; training on both manual and electric typewriter.
Prerequisite: Typing 2.503 or equivalent.

2.506 Typing V **4 class hrs/wk 2 credits**
Advanced course in production typewriting on all types of business materials. Continuation of skill development and typing techniques.
Prerequisite: Typing 2.505 or equivalent.

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

2.558 Introduction to Programming **3 class hrs/wk 3 credits**
This course 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 SL/1 for the 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.

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.

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.

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 manufactures 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 procedure. Class time will be utilized to guide the students toward completion of the project and to look at 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 of work per term.

2.585 Data Processing for Business Management
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.

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

A course designed to give the student an arithmetical background in general office work. Principles and shortcuts in basic functions such as addition, multiplication, decimals, fractions, percentage, simple and compound interest and discount, and the application of these functions to modern business.

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, sampling, time series, cyclical fluctuations, and the application of statistics in business.

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.

Prerequisite: Sophomore standing or consent of instructor.

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 **2 lec - 3 lab hrs/wk 3 credits**

Continuation of initial course in office machines. Student will be given intensive experience on a variety of office machines.

2.524 Office Procedures I **3 class hrs/wk 2 credits**

This initial course is designed to introduce the student to general office duties and the simple tools he will use in an office. Detailed instruction will be given in office techniques, including introduction to transcribing machines.

2.525 Office Procedures II **3 class hrs/wk 2 credits**

A continuation of Office Procedures I, preparing the stu-

dent to handle the office mail, telephone and telegraph communications, sources of information, and prepare office records and reports, including graphic presentations of business trends. Records and reports are emphasized. Continuation of transcribing machines.
Prerequisite: Office Procedures I, or equivalent.

2.526 Office Procedures III **3 class hrs/wk 2 credits**
A continuation of Office Procedures II with emphasis on those duties that require meeting the public as receptionists, cashiering, preparing credit instruments, and sales office operations. The student will be introduced to economic factors that affect business. Public relations and personality receive emphasis. **Prerequisite:** Office Procedures II, or equivalent.

2.528 Clerical Office Procedures **6 class hrs/wk 3 credits**
Practice and procedures used in the modern business office. Personal development and good human relations, filing, telephone communications, duplicating and transcribing machines, job interviewing. **Prerequisite:** Typing III or enrolled in Typing III.

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.
centering.

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.

2.532 Bookkeeping III **5 class hrs/wk 3 credits**
An advanced 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.

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.

2.541 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 or equivalent.

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

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

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

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

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

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

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.

2.613, 2.614, 2.615 On-the-Job Training (Secretarial)
16 hrs/wk 4 credits
Supervised employment in secretarial field, stenography, office management, records control, etc. The employment portion shall be a minimum of 16 hours per week, with seminar.

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, with seminar.

2.652 Filing and Records Control, 1 class - 2 lab hrs/wk 2 credits
Covers all basic systems found in modern business offices.

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 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 experimental media are used. Painting will be done from still lifes, human figure and individual imagination. One three-hour 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.

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.

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

(No more than six hours credit may be earned in Mus).

Music 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.

ENVIRONMENTAL CONTROL TECHNOLOGY

6.101 Introduction to Environmental Control I

3 class - 3 lab hrs/wk 4 credits

An introductory course which surveys environmental problems of interest to Mid-Willamette area industry and governmental agencies. Particular emphasis will be directed toward the modern technologies of improving air and water quality. Field trips and laboratory experiments are designed to supplement material presented during the lecture-discussion period.

6.102 Introduction to Environmental Control II

3 class - 3 lab hrs/wk 4 credits

Continuation of 6.101. Emphasis is placed on integrating the various environmental problems as they apply to a community. An ecological approach is stressed. Methods and approaches to solving problems are analyzed. Through first-hand study of existing problems, students gain experience in setting standards and recommending changes.

6.110 Basic Hydraulics for Waste and Wastewater

6 class hrs/wk 4 credits

A basic study of the properties of fluids in closed conduit and open channel flow, including stream flow, subterranean flow, run-off, pump head and wave action.

6.115 Microbiology for Environmental Control

6 class hrs/wk 4 credits

A general microbiology survey with special emphasis on sanitation microbiology. The following areas will be covered: history and importance of microbiology; basic morphology and physiology of cells; survey of bacteria their charactertistics 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.

6.203 Sanitary Chemistry **8 class hrs/wk 4 credits**

A systematic study of the theory and laboratory techniques needed to perform all analysis necessary in determining the suitability of a source of water for use and and as an aid in the purification process. Areas emphasized include: color, turbidity, pH, alkalinity, hardness, and other minerals and detergents.

6.207 Water Supply & Wastewater Control I
5 class hrs/wk 3 credits

A study of water supply. All sources of water, including ground and surface, are studied. Subject matter includes water quality and composition, development and protection of water resources, methods of collection and storage, watershed management, and well production yields and maintenance.

6.208 Water Supply & Wastewater Control II
5 class hrs/wk 3 credits

Continuation of 6.207. This portion deals with collection, transportation and disposal of liquid wastes. Subject matter includes composition of municipal and industrial wastes, methods of treatment, and control of water quality released back into the environment. Emphasis is placed on the relation to fresh water supply and the problems associated with wastewater release.

6.211 Surveying **8 class hrs/wk 4 credits**

Theory and practice of plane surveying, including taping, differential and profile leveling, cross sections, earthwork computations, transit, stadia, and transittape surveys.

6.215 Wastewater Treatment **5 class hrs/wk 3 credits**

This course deals specifically with the methods and techniques of wastewater treatment. Trickling filter operation, activated sludge and other conventional processes are studied in detail. Wastewater treatment plant design and operation are studied.

6.220 Instrumentation and Controls **6 hrs/wk 4 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.

6.225 Water Purification **6 class hrs/wk 4 credits**

The chemistry and biology of water is studied in detail. Subject matter includes methods to improve water quality, methods of sample collection, associated water laboratory techniques, and operation of water treatment plants.

6.230 Contracts, Specifications, Codes, Estimates & Costs **6 class hrs/wk 4 credits**

This course deals with developing a basic understanding of contracts, specifications, codes, estimates and costs in general. Experience is gained in both reading and writing such documents. Specific emphasis is placed on their application to various environmental control problem areas and treatment facilities.

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 class - 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.

5.255 Rescue & Emerg. 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.

5.256 Physical Science of Fire **2 class - 3 lab hrs/wk 3 credits**

Characteristics and behavior of fire; fundamentals of physical laws and chemical reactions occuring in fire and fire suppression; analysis of factors contributing to fire—its cause, rate of burning, heat generation and travel, by-products of combustion—and to its confinement, control, and extinguishment.

5.257 Fire Department Hydraulics
3 class - 3 lab hrs/wk 4 credits
Review of basic mathematics; hydraulic laws and formulas as applied to the fire service; application of formulas and mental calculations to hydraulics problems; fire ground water-supply problems; Underwriter's requirements for pumps and accessories.

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 of these materials.

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 Dept. 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 & 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; pension, mutual aid and fire prevention codes.

HEALTH OCCUPATIONS

5.406 Nurses Asst. 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 Asst. 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.

INDUSTRIAL

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

A 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 - 3 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.

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

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

3.292 Chassis II **2 class - 3 lab hrs/wk 3 credits**

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

3.295 Hydraulics and Pneumatics
2 class - 3 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 of farm and industry.

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

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

3.324 Tune-up and Diagnosis 2 class - 3 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.

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 Automotive Repair Practices 3.329.

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 relationship with customers, labor and management groups, and individuals is emphasized.

3.334 Internal Combustion Engines
2 class - 6 lab hrs/wk 4 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 the engine to manufacturer's specifications.

3.335 Automotive Electricity 2 class - 6 lab hrs/wk 4 credits

Prerequisite to Tune-up and Diagnosis 3.324

Basic instruction and practice in the theory and servicing of automotive electrical equipment and systems. On-the-job training 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 whole automobile system.

3.350 Service Station Operation

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.

3.360 Automotive Machine Shop

2 class - 3 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.

3.364 Fuels and Carburetion 2 class - 3 lab hrs/wk 3 credits

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

3.370 Automotive Brakes 2 class - 3 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.

3.375 Heat Exchangers and Air Control

2 class - 3 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.

3.380 Machine Tools I 2 class - 4 lab hrs/wk 3 credits

Covers the fundamentals and workable knowledge of the processes and machines required of the machinist. Safety, shop rules and procedures, bench and layout tools, micrometers and other measuring tools, application of mathematics to shop problems. Plane turning, boring, facing, and chucking operations on the engine lathe.

3.381 Machine Tools II 2 class - 4 lab hrs/wk 3 credits

A continuation of instruction in the operation and maintenance of the machine lathe. Introduction to the types and uses of milling machines and shapers. **Prerequisite:** Machine Tools I.

3.382 Machine Tools III **2 class - 4 lab hrs/wk 3 credits**
A continuation of Machine Tools II with advanced projects and metallurgy. **Prerequisite:** Machine Tools II.

3.425 Employment Techniques **1 class hr/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.

3.440 Industrial Carpentry **2 class - 3 lab hrs/wk 3 credits**
A maintenance type course devoted to alteration, repair and design of wooden structures used in industry. Emphasis is on fire safety, safe working habits, public safety, and materials conservation.

3.444 Metallurgy **3 class - 3 lab hrs/wk 4 credits**
An introduction to those metals which may be readily welded in respect to how these metals behave when subjected to specific fabrication processes. An attempt is made to understand metal failures and methods of eliminating these failures.

3.448 Industrial Electronics **2 class - 3 lab hrs/wk 3 credits**
A continuation of industrial electricity that introduces the student to the principles and applications of electronics in industry. Emphasis is on electronic relays, timing devices, photo-electric circuitry instrumentation, and solid state control mechanisms. **Prerequisite:** Industrial Electricity 3.462.

3.452 Plumbing and Pipe Fitting **2 class - 3 lab hrs/wk 3 credits**
This course introduces the emergency pipe repair and maintenance procedures and measures necessary in industry. Pressure loss, liquid friction, supports, fittings, adapters and basic pipe safety and maintenance are studied and evaluated.

3.455 Masonry and Concrete Fundamentals
2 class - 3 lab hrs/wk 3 credits
A study of concrete and masonry products, the governing codes of standardization, the applications, and the methods and practices of common usage in industry. Reinforcing, fireproofing, repairing and maintaining concrete and masonry structures are included.

3.458 Sheet Metal **2 class - 3 lab hrs/wk 3 credits**
An introductory course involving layout and fabrication practices used in industry. Emphasis is given to preplanning, pattern transfer, metal cutting, forming and securing. Safety, material conservation and good work habits are stressed.

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.

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

4.105 Drafting and Blueprint II **4 class hrs/wk 2 credits**
The emphasis in this intermediate drafting course will be placed on dimensioning, sectional and auxiliary views, 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.

4.107 Layout Procedures for Welders **4 class hrs/wk 2 credits**
A fundamental course designed to give the student a basic understanding of drafting and material layout as related to welding fabrication. Procedures for the transfer of blueprint or working drawing informatiin as it is related to the various structural steel shapes will be stressed.

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.

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, and 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, elevations, 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.

4.120 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.

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.

4.123 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' illustrations and industrial training. Freehand and isometric template drawings, exploded assembly drawings, pencil and ink shading, and color rendering will be covered in this course.

4.126 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. **Prerequisites:** 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, wood products, and metallurgical industries will be correlated with class assignments.

4.128 Drafting Practices **2 class hrs/wk 2 credits**
A course to provide a basic understanding of the drafting profession for the beginning drafting student. Equipment, materials, supplies, microfilming, computerized and photographic drafting, drawing reproduction, and emerging developments will be studied. Short visits will be made to engineering, architectural, and industrial drafting firms.

4.130 Project Drafting **7 class hrs/wk 3 credits**
An advanced course offering the opportunity to study, in depth, in 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.

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.

4.151 Welding I **1 class - 3 lab hrs/wk 2 credits**
Set-up and operation of oxyacetylene welding and cutting equipment. Demonstrations and practice in welding, brazing and soldering ferrous and non-ferrous metals and their alloys. Various types of welds are made and tested. (For non-majors.)

4.152 Welding II **1 class - 3 lab hrs/wk 2 credits**
Set-up and operation of electric arc welding equipment. Technical information on use of rods, composition of metal and application is included. Inert arc welding is also included. (For non-majors.)

4.153 Welding Seminar **3 class hrs/wk 3 credits**
Lectures and discussion sessions covering selection of equipment, welder certification, etc. **Prerequisite:** second year standing.

4.240 Basic Arc Welding **2 class - 12 lab hrs/wk 6 credits**
An introduction to arc welding practices on mild steel of various thicknesses and joint configurations in all positions on mild steel.

4.241 Intermediate Arc Welding, 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
1 class - 3 lab hrs/wk 2 credits
This is a course on bench tools and their use, with layout principles and applications. The bench tools studied will include hand tools such as: hammers, screwdrivers, files, chisels, wrenches, hand taps and reamers, hacksaws and threading dies. Layout work will consist of the use of tools, measurements, coating materials, and applications of bench and surface plat layouts.

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.

4.122 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 II or equivalent.

4.125 Materials Testing **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 nondestructive evaluation. Elementary principles of measurements; methodology, test equipment, instrumentation, and analysis of data.

4.138 Statistical Quality Control **3 hrs/wk 2 credits**
Control of quality through the use of statistical analysis, typical control techniques, and underlying theory. Development of reliability models and procedures for product assurances.

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, potentiometry and amperometry.

6.293 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.

6.294 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.

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 charactertistics, photomacrography and photomicrography of ferrous and non-ferrous metals.

9.500 Elements of Supervision **3 class hrs/wk 3 credits**

A basic introductory course 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 Communication for Supervisors
3 class hrs/wk 3 credits

Review of writing mechanics covering grammar, punctuation, sentence structure and paragraph structure. Business letter writing involving the principles, planning, and dictating of letters. Memorandum and bulletin writing with emphasis on format, content, structure, tone and style. Manual writing, covering format, content and structure.

4.350 On-the-Job Training (Industrial)

Supervised employment in positions providing practical experience in the various aspects of industry suited as nearly as possible to the student's wants and capabilities. Credits and hours to be determined.

9.502 Basic Psychology for Supervisors **3 class 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 Communications for Supervisors
3 class hrs/wk 3 credits

How we communicate, effective speaking and listening. Kinds of supervisory communications. Saying what we mean, which covers oral versus written communication. Understanding what is communicated as related to intent and effect. Conference leading practice for supervisors.

9.504 Developing the Employees Through Training
3 class hrs/wk 3 credits

The supervisor's responsibility for developing employees through training. Orientation and induction. Vestibule and on-the-job techniques. Job instruction principles. Apprenticeship training, technical training. Supervisory training. Supervisory training and management development. Use of outside agencies. Advisory committees.

9.505 Report Writing for Supervisors **3 class hrs/wk 3 credits**

Types of reports. Statistical, financial, narrative, technical. Steps in preparation of reports. 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 **3 class hrs/wk 3 credits**

To show the practical application of basic psychology in building better employer-employee relationships by studying human relations techniques. **Prerequisite:** Basic Psychology for Supervisors.

9.507 Reading Improvement for Supervisors

3 class hrs/wk 3 credits

General approach to better reading through the proper use of text materials, reading films, tachistoscope, and practice. Benefits of better reading, primary considerations in reading, evaluating and analyzing what is read, vocabulary improvement, advanced reading tips.

9.508 Labor-Management Relations **3 class hrs/wk 3 credits**

The history and development of the Labor Movement. Development of the National Labor Relations Acts, the Wagner Act, the Taft-Hartley Act. The supervisor's responsibility for good labor relations. The union contract and grievance procedure.

9.509 Industrial Economics **3 class hrs/wk 3 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

3 class hrs/wk 3 credits

The supervisors responsibility for job methods of improvement. The basic principles of work simplifications. Administration and the problems involved. Motion study fundamentals for supervisors.

9.514 Cost Control for Supervisors **3 class hrs/wk 3 credits**

How costs are determined in industry. Cost control and its functions. The supervisor's responsibility for costs. Factors in cost control: costs, materials, waste, salvage, quality control, control of time.

9.516 Supervisor's Responsibility for Management of Personnel

3 class hrs/wk 3 credits

Personnel techniques for which the supervisor is partially responsible and for which he should have some training in carrying out his responsibility. Selection, placement. Testing, orientation, training, counseling, merit rating, promotion, transfer, and training for responsibility.

9.518 Organization and Management **3 class hrs/wk 3 credits**

The supervisor's responsibility for planning, organizing, directing, controlling and coordinating. Acquaints the supervisors 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 class hrs/wk 3 credits

The history of wages. Inequalities in rates of pay. Management and union movement toward a "fair wage" plan. The supervisory and job descriptions, job specification, job evaluations, and job 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 class hrs/wk 3 credits

Problems of accident 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 regulation. The First Aid Department and the line supervisor's responsibility. Job instruction. Company rules and enforcement. Use of Safety Committees. Your insurance carrier and the Insurance Rating Bureau. Advertising and promoting a good safety and fire prevention program.

9.524 Management Controls and the Supervisor
3 class hrs/wk 3 credits

Basic principles of controls. Delegation of responsibility through the use of controls. The purpose and objectives of controls, manufacturing costs, quality control, quantity control, production control, control over materials, control over personnel organization.

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 sequenece. (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**

Study of important plays—comedies, histories and tragedies.

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

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

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 constructions 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 critical 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 parliamentary 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.

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

1.101, 1.104 Communication 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 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, spelling, sentence structure, punctuation, and usage. Frequent practice in basic writing techniques and vocabulary development. Tutorial conferences.

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.

LAW ENFORCEMENT

LE 111, 112, 113 Law Enforcement and Society 3 class hrs/wk 3 credits
Orientation in law enforcement; history and philosophy of enforcement of criminal laws; administration of justice; etiology of criminal behavior; correctional treatment; professional career opportunities.

5.200 Introduction to Law Enforcement 3 class hrs/wk 3 credits
The philosophy and history of law enforcement; overview of crime and police problems; organization and jurisdiction of local, state and federal law enforcement agencies; survey of professional career opportunities, qualifications required, and police ethics.

5.202 Administration of Justice 3 class hrs/wk 3 credits
Review of court systems; procedures from incident to final disposition; principles of constitutional, federal, state and civil laws as they apply to and affect law enforcement.

5.204 Defensive Tactics I **2 lab hrs/wk 1 credit**
A course designed to teach the rudiments of self-defense and attack. Boxing, wrestling, and hand-to-hand combat will be offered.

5.206 Defensive Tactics II **2 lab hrs/wk 1 credit**
A continuation of Defensive Tactics 5.204.

5.208 Criminal Law I **3 class hrs/wk 3 credits**
The structure definitions and the most frequently used sections of the Penal Code and other criminal statutes. Prerequisite to 5.238.

5.210 Traffic Control **3 class hrs/wk 3 credits**
Traffic law enforcement, regulation and control; fundamentals of traffic accident investigation; Oregon Motor Vehicle Code.

5.212 First Aid I **2 lab hrs/wk 1 credit**
A class in standard First Aid procedures and techniques designed to meet graduation requirements of all students as well as adults who wish to secure first aid training. Upon successful completion of course, a standard first aid card will be given.

5.213 First Aid II **2 lab hrs/wk 1 credit**
A class in advanced first aid procedures and techniques to meet the needs of special interest groups who have opportunity to give first aid care frequently in the course of their daily routine. Upon successful completion of the course, an advanced first aid card will be given.

5.214 Emergency Care and Rescue **2 lab hrs/wk 1 credit**
A study and practice of rescue techniques and application of approved first aid practices of various agencies involved in search and rescue during emergency situations.

5.240 Police Report Writing **3 class hrs/wk 3 credits**
This course supplies knowledge of the principles of composition and basic forms of writing reports. The subjects covered are: why reports are written, types of reports, make-up of reports, effectiveness of writing styles, gathering of facts for a report, planning a report, method of writing a report, layout and typing of a report, and visual aids in a report.

PHYSICAL EDUCATION

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

HE 250 **Personal Health** **2-3 class hrs/wk 2-3 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. 2-3 hours any term.

HE 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 of American Red Cross.

SCIENCE AND MATH

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.

Ch 101, 102, 103 General Chemistry
2 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. **Prerequisite:** High school algebra or Math 95.

G 201, 202, 203 Geology **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 non-science major. 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 geology

Ph 201, 202, 203 General Physics
3 lecture - 1 discussion - 3 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:** Through Math 102 or permission of the instructor.

Z 201, 202, 203 General Zoology 2 class - 3 lab hrs/wk 3 credits
This is a survey course in zoology for students in premedical, dental, pharmacy, and nursing programs as well as others not planning to major in zoology.

Math 95 Intermediate Algebra 5 hrs/wk 4 credits
Expressions, exponents, roots and radicals, first degree equations and inequalities, second degree equations, functions and graphs. **Prerequisite:** One year of high school algebra or Mth 1.110.
Some colleges will not accept Mth 95 for credit if a student has had one and one-half years of algebra in high school.

Mth 101 College Algebra 5 hrs/wk 4 credits
Additional work in already familiar topics of algebra together with the introduction of new topics as a basis for study in more advanced courses. Equation and inequalities, functions and graphs, systems of equations, logarithmic and exponential functions, mathematical induction, sequences and series, and set theory. **Prerequisite:** Three years of high school mathematics or Math 95.

Mth 102 Trigonometry 5 hrs/wk 4 credits
Trigonometric functions, identities, and equations. Graphs of the trigonometric functions, inverse relations and functions, solutions of triangles, vectors and complex numbers. The emphasis of the course will be on the analytic aspect of trigonometry. **Prerequisite:** Mth 101 or equivalent or consent of instructor.

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 an intuitive point of view. Especially suitable for majors in the social sciences, business administration, the humanities, and biological sciences whose programs call for a term of calculus. This course will not substitute as the first term of the regular calculus sequence. **Prerequisite:** Mth 101 and 102 or consent of the instructor.

Mth 110 Analytic Geometry 5 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. **Prerequisite:** Mth 101 and 102.

Mth 191, 192, 193 Math for Elementary Teachers
4 hrs/wk 4 credits

Mth 191: *An introduction to mathematical language and logic, elementary set theory, whole numbers, abstract groups and integers with emphasis on the properties of an ordered group.

Mth 192: 3 hours—Rational and real numbers with major emphasis on the postulates of an ordered field. The student will be expected to make conjectures, write proofs and compare mathematical systems. Introduction to coordinate geometry, distance, equations of a line and conic sections.

1 hour—Implications to the teaching of mathematics and the process of learning.

Mth 193: 2 hours—Introduction to elementary plane geometry, incidence, measurement, congruence, similarity.

2 hours—Application and evaluation of teaching methods through visitation of local schools and presentation of mathematical concepts. This sequence does not fulfill the science group requirements for the Oregon State System of Higher Education.

*Basic concepts of mathematics for prospective elementary teachers.

Mth 200, 201, 202, 203 Calculus **5 hrs/wk 4 credits**

Standard sequence for students mathematics, science, and engineering.

Mth 200: Functions and graphs, limits, continuity, differentiation, applications of differentiation, related rates and extrema, anti-differentiation.

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

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

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

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

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

Basic principles of computation; programming a computer in an algebraic language. **Prerequisite:** Mth 101 or consent of the instructor.

0.669 Basic Mathematics II **3 class hrs/wk 3 credits**

This course is a continuation of Basic Mathematics I, and includes additional work with equations and formulas as well as topics in elementary geometry and elementary trigonometry.

4.145 Industrial Mathematics I **3 class hrs/wk 3 credits**
This course is similar to Basic Mathematics I in content, but many topics are covered in greater depth and greater emphasis is placed on application and problem-solving with typical problems from industry being used. **Prerequisite:** Enrollment in a vocational-technical or apprenticeship program.

4.146 Industrial Mathematics II **3 hrs/wk 3 credits**
This course is a continuation of Industrial Mathematics I. Elementary algebra and an elementary geometry with applications.

4.147 Industrial Mathematics III **3 hrs/wk 3 credits**
An introduction to trigonometry for students in technical fields. A required course for students in drafting technology. **Prerequisite:** 4.146 or the consent of the instructor.

1.110 Elements of Algebra **4 hrs/wk 3 credits**
Fundamental concepts of algebra. Operations with algebraic expressions and polynomials, algebraic fractions, factoring, linear equations, and graphing. Stated problems and applications are studied throughout the course.

6.337 Slide Rule **3 lab hrs/wk 1 credit**
A basic course on the operation and use of the slide rule. Included are various methods of placing the decimal point, multiplication and division, 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.

4.300, 4.302, 4.304 Practical Physics
3 class - 2 lab hrs/wk 4 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.
4.300: Heat, light, sound
4.302: Matter, measurement, mechanics, and machines
4.304: Magnetism and electricity

0.668 Basic Mathematics I **3 class hrs/wk 3 credits**
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, common fractions, and decimal fractions; measurement; ratio and proportion; per cent; graphs; equations and formulas; word problems.

0.669 Basic Mathematics II **3 class hrs/wk 3 credits**

This course is a continuation of Basic Mathematics I, and includes additional work with equations and formulas as well as topics in elementary geometry and elementary trigonometry.

4.145 Industrial Mathematics I **3 class hrs/wk 3 credits**

This course is similar to Basic Mathematics I in content, but many topics are covered in greater depth and greater emphasis is placed on application and problem-solving with typical problems from industry being used. **Prerequisite:** Enrollment in a vocational-technical or apprenticeship program.

4.146 Industrial Mathematics II **3 hrs/wk 3 credits**

This course is a continuation of Industrial Mathematics I. Elementary algebra and an elementary geometry with applications.

4.147 Industrial Mathematics III **3 hrs/wk 3 credits**

An introduction to trigonometry for students in technical fields. A required course for students in drafting technology. **Prerequisite:** 4.146 or the consent of the instructor.

1.110 Elements of Algebra **4 hrs/wk 3 credits**

Fundamental concepts of algebra. Operations with algebraic expressions and polynomials, algebraic fractions, factoring, linear equations, and graphing. Stated problems and applications are studied throughout the course.

6.337 Slide Rule **3 lab hrs/wk 1 credit**

A basic course on the operation and use of the slide rule. Included are various methods of placing the decimal point, multiplication and division, 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.

4.300, 4.302, 4.304 Practical Physics
3 class - 2 lab hrs/wk 4 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.

4.300: Heat, light, sound

4.302: Matter, measurement, mechanics, and machines

4.304: Magnetism and electricity

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 men; 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.

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.

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.

1.606, 1.607, 1.608 Introduction to Psychology and Human Relations **3 class hrs/wk 3 credits**

A survey of contemporary psychology with emphasis on the practical application in all fields of life. Covers the definition of psychology; cultural and biological backgrounds of behavior; such determinants of behavior as learning, perception, motivation, thinking and intelligence, frustration and defense mechanisms; the study of the individual person including: personality assessment, child development, maladjustment, interpersonal behavior and social relations. SHOULD BE TAKEN IN SEQUENCE.

EDUCATION

Ed 207 Seminar **1-3 hrs/term maximum 3 credits**

Introduction to the field of education. Not applicable toward meeting major requirements in education.

Ed 209 Practicum **1-3 hrs/term maximum 3 credits**

Observation and introductory experience in education. Not applicable toward meeting major requirements in education.

Index to Programs and Courses

ALBANY PRINTING COMPANY, ALBANY, OREGON