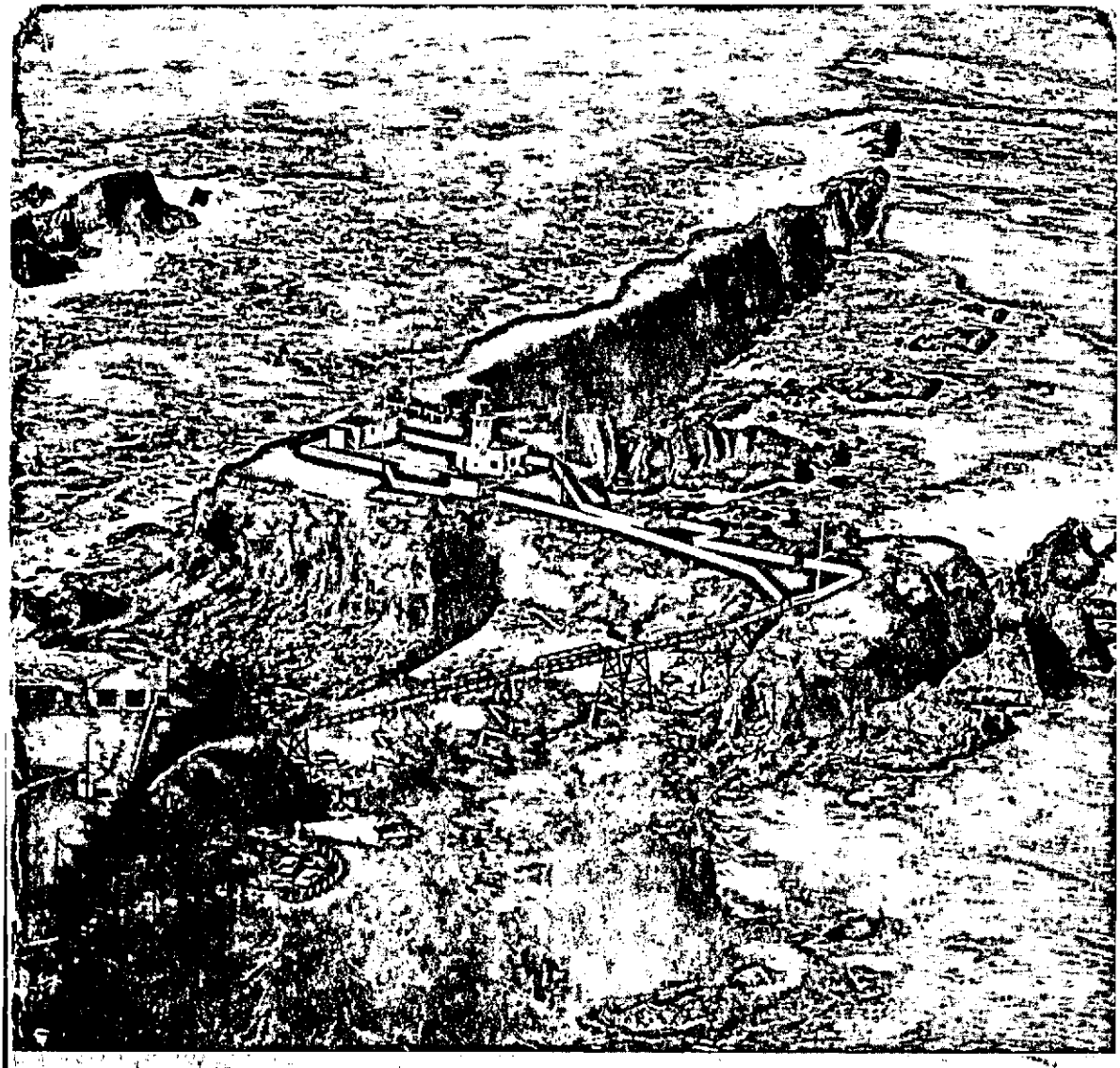
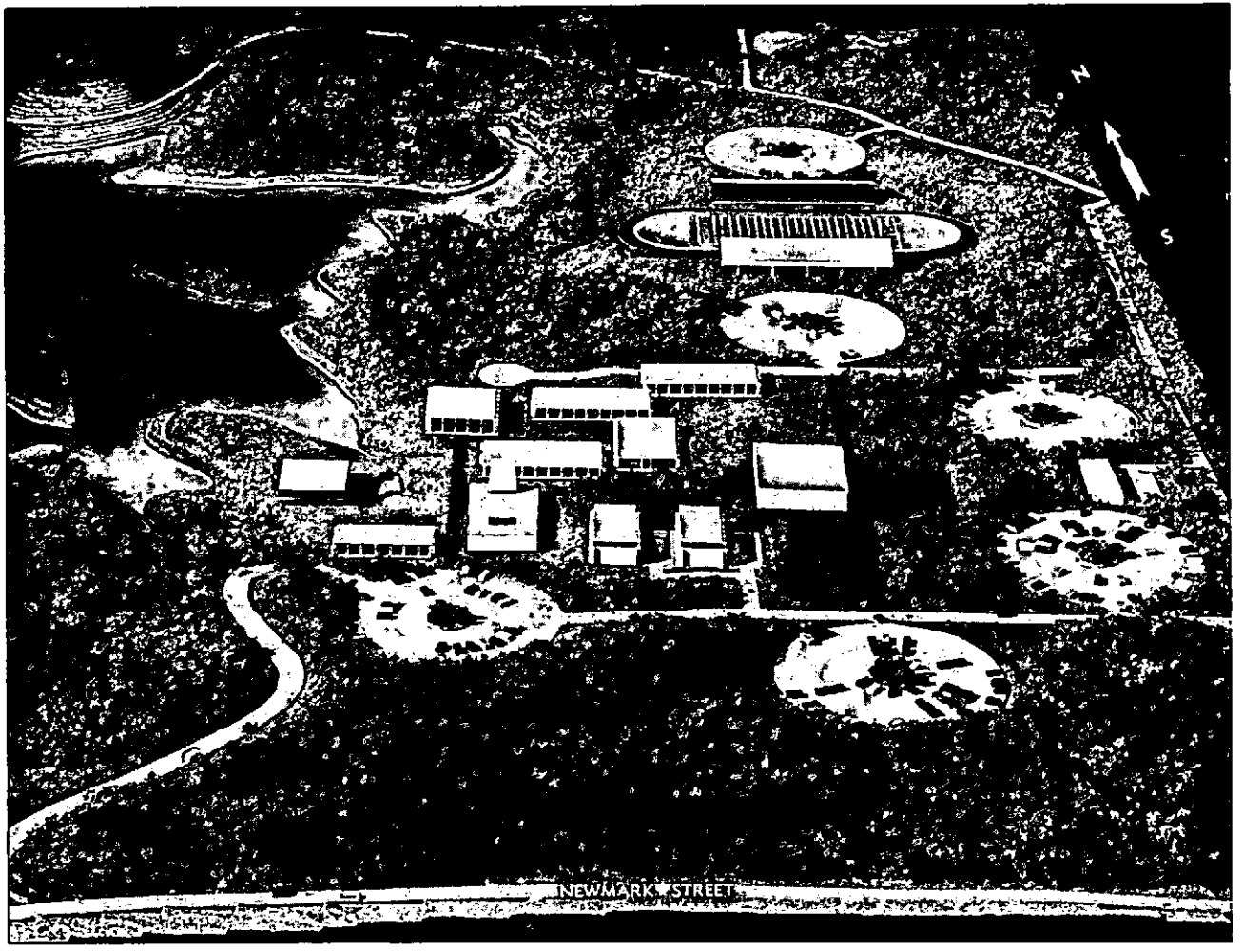


Southwestern Oregon College

Kodene Eaton

SOUTH WESTERN OREGON COLLEGE 1961

1964 1965



PROJECTED CAMPUS DEVELOPMENT AS SHOWN BY THE ARCHITECT'S MODEL

Southwestern Oregon College

GENERAL CATALOG

1964 – 1965

A
PUBLIC
TWO-YEAR
COEDUCATIONAL
COMMUNITY
COLLEGE

BOX 509
2750 COLORADO STREET
NORTH BEND, OREGON

ACADEMIC CALENDAR

SUMMER SESSION, 1964

June 8-19 ..... Placement tests given by appointment
June 22, Monday ..... Registration for Summer Session
June 23, Tuesday ..... Summer Session classes begin
June 24, Wednesday ..... Late registration fee charges begin
July 3, Friday ..... *Last day for withdrawals without an "F"
August 14, Friday ..... Summer Session ends

FALL TERM, 1964-65

September 14-18, 21 & 22 ..... Placement tests given
September 11, Friday ..... Applications for new admissions due
September 24, Thursday ..... Registration; Initials A through K
September 25, Friday ..... Registration; Initials L through Z
September 24, 25 ..... Orientation meetings; new students
September 28, Monday ..... Classes begin
September 29, Tuesday ..... Late registration fee charges begin
October 23, Friday .....*Last day for withdrawals without an "F"
November 11, Wednesday ..... Veterans' Day—school holiday
November 26 and 27, Thursday and Friday ..... Thanksgiving holiday
December 14-18, Monday-Friday ..... Term examinations
December 19 — January 3 ..... Christmas holiday

WINTER TERM, 1964-65

January 4, Monday ..... Registration for Winter Term; new student orientation meetings
January 5, Tuesday ..... Classes begin
January 6, Wednesday ..... Late registration fee charges begin
January 29, Friday .....*Last day for withdrawals without an "F"
March 15-19, Monday-Friday ..... Term examinations
March 20-28 ..... Spring vacation

SPRING TERM, 1964-65

March 29, Monday ..... Registration for Spring Term; new student orientation meetings
March 30, Tuesday ..... Classes begin
March 31, Wednesday ..... Late fee charges begin
April 23, Friday .....*Last day for withdrawals without an "F"
June 7-11, Monday-Friday ..... Term examinations
June 13, Sunday ..... Graduation exercises

SUMMER SESSION, 1965

June 21, 1965 ..... Registration for Summer Session

*Note: See page No. 9 for regulations governing withdrawals.

ADMINISTRATION

Board of Education

G. E. Albertson
Henry F. Hansen
Orville R. Adams
Karl Gehlert
Ben R. Chandler, Jr.
Richard Hanen
Harry H. Byrer

OFFICERS OF ADMINISTRATION

Wendell L. Van Loan, Ed.D. ..... President of the College
Samuel A. Yorks, Ph.D. ..... Dean of Liberal Arts and Sciences
Earl Hepler, Ed.D. ..... Dean of Technical-Vocational and General Education
M. M. Romig, Ed.M. ..... Registrar and Director of Admissions
Harvey Crim, B.S. ..... Comptroller

SOUTHWESTERN OREGON COLLEGE FACULTY

*Alto, Victor; Instructor; Carpenter Apprentice. Certified Vocational Instructor.

Andrews, Wayne; Assistant Professor, Automotive Technology. Certified Vocational Instructor.

*Arrambide, Anthony, B.A.; Instructor, Modern Languages. B.A. (1951) College of Idaho.

Baker, Craig, M.A.; Assistant Professor, Science. B.S. (1958) Oregon College of Education; M.A. (1962) Stanford University.

Baxter, Bryce, M.S.; Assistant Professor, Mathematics. B.S. (1958) Eastern Oregon College; M.S. (1962) Oregon State University.

*Bayes, Maurine, C.P.S.; Instructor, Business and Commerce. Certified Vocational Instructor.

Crandall, Jerry R., M.Ed.; Assistant Professor, English and Literature. B.A. (1957); M.Ed. (1962) University of Oregon.

Crim, Harvey, B.S.; Comptroller. B.S. (1951) Oregon State University.

Croft, Robert, M.S.; Assistant Professor, History and Political Science. B.S. (1950) University of Oregon; M.S. (1951) University of Oregon.

*Doty, Irwin; Instructor, Certified Related Technical-Vocational Subjects.

El-Wattar, Zaki, M.A.; Assistant Professor, Business and Commerce. B.C. (1951) University of Cairo; M.A. (1954) San Francisco State College.

*Eickworth, Clara M., M.S.; Instructor, Home Economics. B.S. (1930); M.S. (1937) Oregon State University. Certified Vocational Instructor.

*Farr, Donald H., M.B.A.; Instructor, Business and Commerce. B.S. (1936) University of Oregon; M.B.A. (1938) Northwestern University.

*Farr, R. C.; Instructor, Inside Electrical Apprentice. Certified Vocational Instructor.

Fawver, Ben J, Ph.D.; Associate Professor, Biological Science. B.Ed. (1941) Illinois State Normal University; M.S. (1947); Ph.D. (1950) University of Illinois.

Feasel, Gary, M.S.; Assistant Professor, Physical Education. B.S. (1958); MS. (1962) Kansas State Teachers College.

*Ferguson, Helen W.; Instructor, Business and Commerce. Certified Vocational Instructor.

Gearhart, John B., B.S.; Instructor, Civil-Structural Engineering Technology. B.S. (1946) Oregon State University; Registered Civil Engineer. Certified Vocational Instructor.

Gibson, Robert N., M.A.; Assistant Professor, Psychology and Counseling. B.A. (1948) University of Texas; M.A. (1962) San Francisco State College.

*Godard, Harold; Instructor, Industrial Electrician Apprentice. Certified Vocational Instructor.

*Gross, Charles; Instructor, Plumber Apprentice. Certified Vocational Instructor.

*Hale, Anita; Instructor, Business and Commerce. Certified Vocational Instructor.

Hepler, Earl, Ed.D.; Dean of Technical-Vocational and General Education. B.S. (1953); M.S. (1954) Kansas State Teachers College; Ed.D. (1957) University of Missouri.

Holmes, William J., M.S.; Assistant Professor, Physical Education. B.S. (1958) Kansas State Teachers College; M.S. (1959) University of Colorado.

Hootman, Warren, B.S.; Instructor, Forestry Technology. B.S. (1958) Iowa State College.

Humphrey, Thomas, M.S.; Assistant Professor, English and Literature. B.S. (1959); M.S. (1961) University of Oregon.

*Jones, Duncan; Instructor; Power Lineman Apprentice. Certified Vocational Instructor.

*Karl, Maggie, B.A.; Instructor, Art. B.A. (1943) Kansas State College.

Kozuma, Harold K., DEd.; Associate Professor, Psychology and Counseling B.S. (1951) University of Hawaii; MS (1958) D.Ed. (1963) University of Oregon.

*Kruse, Una Lee, M.A.; Instructor, English. B.A. (1938) Augsburg College; M.A. (1939) Northwestern University.

LaFond, Isabelle, R.N.; Instructor, Practical Nurse Training. St. Barnabas Hospital School of Nursing (1931); University of Oregon School of Nursing, Nursing Education B.S. (1962).

LeFebre, Charlene, M.A.; Assistant Professor, Anthropology and Sociology. B.S. (1945); M.A (1948) Radcliffe College.

LeFebre, Charles, M.A.; Assistant Professor; College Librarian. B.A. (1940) University of Alaska; M.A. (1963) University of Oregon.

*Leegard, Ellsworth J.; Instructor, Welding. Certified Vocational Instructor.

Lilienthal, Ronald, M.S.; Assistant Professor; B.S. (1958) University of Oregon; M.S. (1963) Oregon State University.

Lovin, Hugh T., Ph.D.; Associate Professor, History. (B.A. (1950) Idaho State College; M.A. (1956) Washington State University; Ph.D. (1963) University of Washington.

Meacham, Bernell, M.S.; Instructor, English and Journalism. B.S. (1941) Utah State University; M.S. (1943) Northwestern University.

Moffitt, Donald R., B.S.; Assistant Professor. Chairman of Business and Commerce Department. B.S. in Commerce (1960) Ferris Institute; Certified Vocational Instructor.

Popp, Janice, B.S.; Instructor, Physical Education. B.S. (1948) University of Oregon.

Romig, Maurice M., Ed.M.; Associate Professor. Registrar and Director of Admissions. B.S. (1929); Ed.M. (1960) Oregon State University.

*Shibley, Lyle, M.S.; Instructor, Driver Training. B.S. (1950); M.S. (1952) University of Oregon.

Sorensen, Vernon C., B.A.; Assistant Professor, Modern Languages. B.A. (1947) University of Utah; Graduate study at University of Zurich.

Spaugh, Roger; Assistant Professor, Electronics Technology. Certified Vocational Instructor.

*Stender, Veneita, B.S.; Instructor. Home Economics. B.S. (1955) University of Idaho. Certified Vocational Instructor.

*Stoll, Richard; Instructor, Mechanical Technology. Certified Vocational Instructor.

*Strassburg, Margaret, B.S.; Instructor, Home Economics. B.S. (1954) Iowa State College.

Thompson, Sydney D., B.S.; Assistant Professor, Business and Commerce. B.S. (1949) Babson Institute; Certified Vocational Instructor.

Trussell, Margaret E., M.A.; Assistant Professor, Geography and History. A.B. (1949) University of California; M.A. (1957) Long Beach State College; M.A. (1960) University of California.

*Vanderhoof, George; Instructor; Welding. Certified Vocational Instructor.

Van Loan, Lillian S., Ed.D.; Professor, Psychology and Counseling. B.A. (1950) Oregon College of Education. E..M. (1951); Ed.D. (1959) Oregon State University.

Van Loan, Wendell L., Ed.D.; President of South Western Oregon College. B.S. (1928); M.S. (1933) University of Oregon; Ed.D. (1942) Stanford University.

Warren, George D., B. S.; Assistant Professor, Mechanical Technology. O.T.I. (1953); B.S. (1961) Oregon State University.

Whitney, Larry, M.S.; Assistant Professor, Technical-Vocational Division. B.S. (1958); M.S. (1963) Oregon State University.

Yorks, Samuel A., Ph.D.; Professor of English; Dean of Liberal Arts and Sciences, B.A. (1949); Ph.D. (1956) University of Washington.

* Part-time instructors.

GENERAL INFORMATION

LOCATION

South Western Oregon College is located in the urban area on Coos Bay in Coos County, Oregon. This is comprised of the municipalities of Empire, North Bend, Coos Bay and Eastside and several unincorporated communities. The campus under construction is on Newmark Avenue in Empire.

ORGANIZATION

South Western Oregon College was established in 1961 in accordance with the provisions in the Oregon Community College Act, Chapter 602, Oregon Laws. The college is operated by the Board of Education of the Southwestern Oregon Area Education District. The college is a public, two-year, coeducational community college with two main divisions: "Liberal Arts and Sciences" and "Technical-Vocational and General Education."

ACCREDITATION

The curricula and standards of S.W.O.C. are approved by the Oregon State Department of Education. All "transfer" courses offered by the Division of Liberal Arts and Sciences applicable to a Baccalaureate (four year) degree are approved by the Oregon State Board of Higher Education, and credit for them can be transferred to the institutions comprising the State System of Higher Education.

PURPOSES

The instructional program of the college is designed to provide all citizens within the area with the best possible opportunity to develop their capabilities and their interests. In order to achieve this aim, the college provides three types of programs.

LIBERAL ARTS AND SCIENCES (Lower Division Collegiate)

The college offers the first two years of college work for those who plan to transfer to a four-year college or university. (See requirements for the Associate in Arts Degree under the Liberal Arts and Sciences Division.) A student may, however, pursue a program of liberal education suited to the particular needs of the student and not necessarily applicable to a four-year college degree.

The college encourages all of its general collegiate students to choose those courses and to participate in those campus activities which will help most to develop understandings and skills essential to the students' most effective performance as whole persons. Two courses are considered so fundamental that they are required of all Liberal Arts graduates: English Composition and Physical Education. On the other hand, a relatively wide offering of elective courses helps to give breadth and scope to the instructional program. Participation in the extracurricular activities program is also recommended to each student, as a necessary part of a liberal education.

Students at the college study in classrooms and laboratories designed and equipped to provide the most effective environment for learning. The latest in audio and visual aids is used widely. Classes are kept small and maximum attention is given to the individual student.

TECHNICAL-VOCATIONAL

To the students who wish training in vocational skills to qualify for entering or advancing in a chosen profession the college offers a variety of occupational programs. The courses in these programs are selected because they will adequately qualify the student in a period of one or two

years. In certain cases the Associate in Science Degree may be earned during the period of study.

These courses may not be transferred to a college or university program leading to a baccalaureate degree. They are planned to provide not only shop and laboratory practice but also to give essential, basic, related courses in communication skills, mathematics, sciences, socio-economics, and related technical courses essential for greater employment possibilities. The college develops its occupational curricula in close cooperation with representatives of the business and industrial interests of the area, with whose guidance and counsel new programs are added as the need for them becomes apparent. Occupational curricula now offered include the following:

Electronics	Stenography
Engineering Technology	General Office Science
General Drafting	Mechanical Technology
Practical Nursing	Retail Business

GENERAL EDUCATION

Much of the effort of the college is directed to providing a wide variety of informal, or semi-formal, educational opportunities to the adult community of Southwestern Oregon. The college cooperates with other community and educational agencies and offers its full facilities, leadership, and staff to the community. Opportunities are provided for experience and other education leading toward increased personal, vocational and civic adequacy. The program may include classes, forums, lectures, workshops, and on-the-job training, in all liberal and vocational fields. Any group of interested persons may request the assistance of the college in establishing such a course or program . If there is an organized body of knowledge, and if an instructor can be found, the college will cooperate enthusiastically in the activity.

The college offers courses classified as occupational extension which are available for the purpose of upgrading employed persons in business, the skilled tradesmen, apprentices, homemakers, and others. The courses listed in this classification are numbered in the nine thousand series. New courses will be added to this series from time to time.

ADMISSIONS

The college accepts students of good moral character who provide evidence of suitable preparation for work at college level. The law provides that a student may enroll at the college if he (or she) is (1) a high school graduate, or (2) a mature person, at least 18 years of age, who is prepared to undertake college work as evidenced by satisfactory completion of educational equivalency tests, or (3) is, in the judgment of the administrator of the college, capable of profiting from the instruction offered.

REGULAR STUDENTS

Regular students are those who enter, part-time or full-time, in an organized program of curricular studies of six class hours or more per week. Applicants for regular admission must submit, well in advance of registration day, (1) a formal application, and (2) an official record of all high school credits or evidence of having satisfactorily passed educational equivalency tests, and (3) submitted evidence of College Board Aptitude and Achievement Examinations. (Note: In the absence of such tests result, students may be scheduled to take special tests given by the counseling center of South Western Oregon College.)

SPECIAL STUDENTS

Persons qualifying by maturity and ability to do satisfactory college work, but who fail (1) to meet the requirements of regular standing, or (2) do not desire to enter regular curricular programs may be admitted without making formal application. Special students may not become candidates for degrees or have their credits transferred to another institution without first qualifying as regular students.

Employed persons enrolling in occupational classes are classified as special students.

Persons registered under the Oregon State Apprenticeship program are admitted to apprenticeship related training classes and classified as special students.

Housewives and others enrolling in classes for adults are classified as special students.

PRACTICAL NURSING

The Practical Nursing Program covers a one-year curriculum of class work and clinical practice. While the students are classified as regular students, their application and registration are handled in a different manner than those entering the regular 36-week program of the college.

Applicants for the Practical Nurse training program must submit their written application approximately three months in advance of the start of the program.

ADMISSION TO SUMMER SESSION

The only requirement for admission to summer session is the ability to do the work. Those persons who wish to earn degrees and those who expect to attend regular sessions at South Western Oregon College must meet standard admission requirements. Persons transferring from other post-high school educational institutions must file a formal application. Transcripts of their academic record will be accepted.

REGISTRATION

PROCEDURE

All students should register in person and should complete registration on the days assigned and before the opening day of each term. Registration dates for the regular academic terms are listed in the college calendar and should be observed. A fee for late registration is charged.

Each new student is assigned a faculty adviser who assists him in planning a program. Detailed registration instructions are contained in the schedule of classes; students should not proceed with registration without a copy of the schedule.

Returning students are expected to informally pre-register in advance of the beginning of each term by consulting with their faculty advisers.

Students are completely registered and entitled to attend classes for credit only when they have completed prescribed procedures including the payment of term fees.

A student may enter the college at the beginning of any term, but is advised to enter fall term when at all possible because of course sequence requirements.

Test results are required of all South Western Oregon College regular (curricular) students. If entering students have taken the College Entrance Examination Boards and have scored above 400, no further tests are required if the student is entering Liberal Arts and Sciences.

Students enrolling in Technical-Vocational curriculum programs will usually be given special aptitude tests other than the College Board Tests.

Placement tests will be given by the South Western Oregon College Counseling Center just prior to each term. For appointment call 756-4121, Extension 35.

AUDITORS

Students who do not wish college credit may register as auditors in any of the courses offered. Auditors are not required to meet any specific academic requirements but should expect to participate fully in the activities of the class. If audit is desired, it should be so indicated at the time of registration. Auditors pay regular fees.

COURSE CHANGES

After initial registration, any student desiring to make course changes—such as changing from credit to audit, audit to credit, dropping courses, or adding courses—must do so by means of a formal request on a form secured from the college office. Students are encouraged to check the academic calendar for regulations governing course changes. See schedule of fees.

WITHDRAWALS

Students may withdraw from courses within certain periods without prejudice, but only by filing official withdrawal forms with the Registrar. A student who registers for a course is considered to be in attendance; if he discontinues without filing official withdrawal forms, he may receive a grade of F in the course. Students are expected to process their withdrawals in person. If a student withdraws from or simply stops attending classes after the dates shown in the academic calendar, he will receive a grade of F unless there are very unusual circumstances involved, and then only if specifically approved by the Dean of his Division and the Director of Admissions.

GRADING SYSTEM

The grading system consists of four passing grades: A, B, C, D; failure, F; incomplete, Inc. Students ordinarily receive one of the four passing grades or failure. Exceptional accomplishment is denoted by the grade of A, superior by B, average by C, inferior by D, unsatisfactory by F. When the quality of the work is satisfactory but the course has not been completed for reasons acceptable to the instructor, a record of incomplete, (Inc.) is made and additional time is granted. Incompletes must be made up within one academic term. Students are officially withdrawn (W) from a course on filing the proper completed forms with the college office. Non-credit courses are graded "S" (satisfactory) or "U" (unsatisfactory).

GRADE POINTS

Grade points are computed on the basis of 4 points for each term hour of A grade, 3 for each term hour of B, 2 for each term hour of C, 1 for each term hour of D, and 0 for each term hour of F. Marks of Inc. and W are disregarded in the computation of points. The grade-point average (GPA) is the quotient of total points divided by total term hours in which grades A, B, C, D, and F are received.

OFFICIAL TRANSCRIPTS

An official transcript is a copy of the student's permanent record, which is signed by the Registrar and has the school's seal placed over this signature Transcripts are issued only upon the order of the student, his parents or guardian, or college officials. Consult the college fee schedule for charges.

ACADEMIC STANDARDS

A student's work is considered satisfactory, and he is considered in good standing, when he maintains an average grade of "C" (GPA of 2.00) on both his quarter term and cumulative grade record. Note: Student grade records are maintained only for those who have applied for and been admitted to a curricular program leading to certificates, degrees, or diplomas.

HONOR ROLL

The names of those students who carry 12 term hours or more in liberal arts and 15 or more clock hours of technical-vocational curricular work without a failing grade and whose GPA for the term is 3.50 or above will be placed on the term honor roll. The dean's honor roll consists of those students whose GPA is 3.00 or above but below a 3.50 without any failing grades.

PROBATION

Any student whose cumulative GPA falls below 2.00, which is a "C" average, shall be reported to the academic standards committee as a probationary student and shall automatically be declared ineligible to participate in college extracurricular activities.

Transfer students entering South Western Oregon College from other post-high school institutions with an accumulative GPA of less than 2.00 are automatically placed on probation.

Those students transferring from one division to another within South Western Oregon College will have their GPA (for probational purposes) computed on the basis of those hours which are applicable to the division into which they transfer.

Note: The academic standards committee has the responsibility of reviewing the scholastic record of all probationary students and the authority to recommend to the college administration the suspension of any student when he appears to have accumulated a grade deficiency which will make it difficult, if not impossible, to satisfactorily complete his educational program. All probationary students are urged to consult the Deans and advisors and the Counseling Center in order to secure all possible help toward improving scholastic accomplishments.

SUSPENSION

Any student classified as probationary (unsatisfactory) for two terms is subject to suspension from the college curricular programs.

REINSTATEMENT

Any suspended student may petition to the academic standards committee for readmission by filing a written request in the office of the registrar.

CREDIT HOUR LOAD

A full-time student in the Liberal Arts and Sciences should enroll for an average of 16 term hours of credit. A minimum of 93 term hours meets the college requirement for an Associate in Arts Degree.

Students may not register for more than 19 term hours without the specific approval of the Dean of Liberal Arts and Sciences. Special permission from the dean is also required before a student may register for more than a single course per term in any given sequence.

A full-time student in the Technical-Vocational Division of the college should enroll for an average of 15 units (20 to 30 clock hours) per term. A minimum of 90 units is required for an Associate in Science Degree.

Employed students should be aware of the fact that these class hours involve about 50 clock hours of scholastic productivity each week during the term. Students who must work, therefore, are advised to fit their job schedules into the term-hour equation and to plan on a period in excess of six terms in which to complete two years, if necessary.

DEGREES AND CERTIFICATES

Specific requirements for degrees and certificates awarded by the South Western Oregon College are listed in this catalog under the appropriate division. Students expecting to graduate must apply to their dean prior to the beginning of their final term. Candidates must apply for degrees and certificates in writing at the registrar's office at least one month prior to the June graduation date.

Diplomas will be granted students completing specific programs which do not qualify them for degrees.

TUITION AND FEES

Fees are payable in full at the time of registration. The right is reserved to make changes in any and all fees at any time, except that fees announced for any given term may not be increased after the date announced for the registration in such term. This does not effect the right of the president of the college to levy special charges at any time should conditions make them necessary.

Payment of the stipulated fees entitles all students registered for academic credit, full-time and part-time, to all services maintained by the college for the benefit of students. These services include use of the library, use of laboratory and course equipment and materials in connection with courses for which the student is registered, subscription to the student newspaper, and admission to special events sponsored by the college. No reduction in fees is made to students who do not intend to avail themselves of these services.

REGULAR FEES	per term
Full-time curriculum students. This applies to a program of eight or more term hours (15 or more clock hours of Technical-Vocational work)	$90.00
Practical Nursing Fee: Payable in three installments (16 week periods)	270.00
Matriculation Fee for Practical Nurse applicants payable at time of official acceptance. Not refundable but applies on tuition fee	25.00
Out-of-district resident. In addition to full-time fee	45.00
Part-time students:	
Students registered for less than eight term hours in Liberal Arts subjects or less than 15 clock hours in Technical-Vocational or general education will pay individual course fees as listed in the college schedule of classes each term.	
Liberal Arts and Sciences courses. Per term hour	12.00
Technical-Vocational and General Education:	
Per CLASS hour (approximate)	6.00
Per LABORATORY hour (approximate)	4.00
Out-of-district resident; additional course fee	50%

SPECIAL FEES

Laboratory Fees for certain courses are assessed by the office in varying amounts and are payable at time of registration.

Fees for special courses and programs not falling into the regular college pattern will have their fees determined by the administration of the college.

Staff Fee: Liberal Arts Division—per credit hour $3.00
Technical-Vocational and General Education ..... 25% of Reg. Fee
All full-time employees, with the approval of the president, may be admitted to one course each term. Part-time employees, if employed half-time or more, may register at the staff fee rate.

Late Registration Fee: ($5.00 maximum) (Charges begin on the day after classes start)

Students in curricular program courses ..... Per school day 1.00

Students in General Educational, Vocational Education and other non-curricular courses ..... Per missed class session 1.00

Check Irregularity Fee ..... per day $1.00
If institutional charges are met by a check which is returned because of any irregularity—NSF, illegible signature, etc. — a fine of $1.00 per day will be charged, maximum $5.00.

Change of Program Fee ..... per change $1.00

Reinstatement Fee $2.00
If for any reason a student has his registration canceled during a term but is later allowed to re-enter, he must pay the reinstatement fee.

Transcript Fee ..... $.50 and $1.00
Each student is entitled to his first transcript free. Subsequent copies will be furnished at the rate of $1.00, first copy and $.50 additional copies furnished simultaneously.

Graduation Fee—paid 30 days prior to graduation $5.00

Audit Fee—same as regular fee.

Special Examination Fee ..... $2.00 per credit hour
Students making application to take an examination for the purpose of obtaining credit will be assessed this fee.

FEE REFUNDS

Students who withdraw from the college or drop courses may be entitled to refunds if they comply with regulations governing withdrawals:

1. Any claim for a refund must be made in writing to the Controller before the end of the term in which the claim originates.
2. The amount of any refund is calculated from the date the written application is received and not from the date the student ceased attending classes. An exception to this rule may be allowed if it can be shown that filing of the withdrawal application was delayed for reasons beyond the student's control.
3. The refund scheduled: During the first week of the term 90%
   second week of the term 70%
   third week of the term 50%
   fourth week of the term 30%
4. No refunds after the third class session of "General Education" courses which meet only once per week (approximately one-third of the course).
5. No refunds will be authorized after the second session of special "seminars" or "workshops" scheduled for six weeks or less.

SCHOLARSHIPS AND LOANS

The administration of scholarship and loan programs is handled by the South Western Oregon College Foundation, Inc., a separate corporation made up of interested citizens from throughout Coos and Douglas Counties. The program is coordinated by the Faculty Scholarship and Loan Committee which operates under the jurisdiction of the Foundation Inc. Scholarships are granted based on financial need, scholastic ability, and general good citizenship. In addition to the scholarships provided by the various organizations and interested individuals within the district, the Board of Directors of the Southwestern Oregon Area Education District has authorized scholarships for two full time students from each of the high school districts within the Area Education District.

Application blanks are available from the college office or from any high school principal in the college district. Applications, including a transcript of all academic work to the date of the application, should be forwarded to the Registrar's office by May 1st.

CENTRAL LABOR COUNCIL SCHOLARSHIPS

The Central Labor Council offers two scholarships to high school graduates of the South Western Oregon College district. These scholarships may be used in either the Technical-Vocational Division or the Liberal Arts and Sciences Division of South Western Oregon College. They are awarded on the basis of financial need, ability to do the required work, and good citizenship. Interested young people should contact their high school principal.

ZONTA SCHOLARSHIPS

Zonta Scholarships shall be for teacher training or nurses' training. Other qualifications being equal, scholarships will preferably be awarded to students who will receive their preliminary training at South Western Oregon College, North Bend, Oregon. However, students may attend one of the Oregon State supported colleges or universities.

FACULTY WOMEN'S CLUB

The Faculty Women's Club of South Western Oregon College provides money to be used at the discretion of the Scholarship and Loan Committee for loans or grants-in-aid.

DISTRICT LOAN FUNDS

A loan fund has been established at South Western Oregon College to aid students in financing part of their college work. Students are eligible to borrow on a short term loan basis. This fund is administered by the Scholarship and Loan Committee. Interested individuals and organizations who have contributed to this fund since January 1, 1963, include:

Coast Guard Auxiliary
North Bend Business and Professional Women's Club
Pioneer School PTA, Reedsport
Dr. and Mrs. W. L. Van Loan
Soroptomist Club, Coos Bay
Soroptomist Club, Coquille
Coos County Licensed Practical Nurse Association
Coos Head Garden Club
Judge and Mrs. Dal M. King
Mrs. Stanley R. Knight
Hazel Rouintree
Southwestern Oregon Insurance Agents Assn.
Irma Pajari
Helen Wolfrehr
Mrs. John G. Nelson
Mr. Wayne A. Culver
Hazel Hanna Loan Fund
John and Dorothea Mullen
Mabel Shriver
O.C.E. Alumni Association
Mr. and Mrs. George Ulett
Mrs. Mabel Easton
Eastside P.T.A.
Coquille Women's Club

P.E.O. EDUCATIONAL FUND

Women students in good standing may be eligible for P.E.O. loans at an interest rate of 3%. The College Counseling Center has information on this loan fund.

COLLEGE ASSURED LOAN PLAN

The United States National Bank has the College Loan Plan which is available to any college student whose family resides in Oregon. Under this plan the bank carries life insurance on the student and parent and allows the student to borrow necessary funds to attend college. The loan provides for repayment within one to six years after college completion. An applicant could gain further information at any branch of the United States National Bank in this college district.

HIGH SCHOOL LOAN FUNDS

Loan funds are also available through the principal's office of several high schools in the district. Further information may be obtained through the College Counseling Center.

GENERAL SCHOLARSHIPS AND GRANTS-IN-AID

Funds have been provided by various organizations and individuals for general scholarships and grants-in-aid to deserving students.

Contributors to these funds include:

P.E.O. Chapter AS, Coos Bay
P.E.O. Chapter CZ, Coos Bay
Joyce Peterson
Bangor P.T.A.
P.E.O. Chapter CS, Coos Bay
SWOC Faculty Women's Club
Mrs. Joyce Newell
Mr. Zaki ElWattar
Reedsport Elementary P.T.A.
Clara Eickworth
P.E.O. Chapter CC, Coquille
Coos County P.T.A.

NATIONAL DEFENSE EDUCATIONAL LOAN

South Western Oregon College is an approved participant in the National Defense Educational Loan fund. Information regarding these loans may be secured by contacting the Scholarship and Loan Committee or the business office.

JOB OPPORTUNITIES

The college employs students in campus positions whenever possible and works closely with the Oregon State Department of Employment in assisting students to obtain part-time employment while attending school. The college does not encourage students to attempt more than 15 clock hours of Technical-Vocational or 9 term hours of Liberal Arts while employed full time.

The college will assist graduating students to obtain information about permanent employment opportunities in the local area, in the state, or in the nation.

LIBRARY

Convinced that a school can be no better than the limitations of its library, the college has an expanding, well-selected collection of materials to inform, excite and challenge the mind. The library is designed to house a balanced collection of the latest books in the business, liberal arts and technical fields as well as a complete set of basic reference material It contains, in addition, an extensive selection of current popular and professional periodicals. It subscribes to a representative selection of metropolitan newspapers. Reserve shelves are regularly established by the librarian at instructor request to facilitate student reading and research, in the reserve room for easy access.

COUNSELING AND GUIDANCE

The college offers counseling and guidance services to every student to assist him in planning an academic and occupational future commensurate with his abilities and interests. These services, including testing programs, are also made available to the community at large. High school juniors and seniors who anticipate registering at South Western Oregon College should take the College Board Aptitude and Achievement Examinations. Information about these tests may be obtained from any high school principal or advisor, the college admissions officer, or the College Counseling Center.

After completing formal application for admission, each student is assigned a permanent program advisor. Although the student is ultimately responsible for his program of courses, the advisor will assist the student in selecting a program which will lead to the student's professional or occupational objectives.

South Western Oregon College has been designated as the official testing agency for the administration of the General Educational Development Testing Program (G.E.D.). This test provides an opportunity for adults who have not graduated from high school to qualify for entrance into the college and is classed as equivalent to a high school diploma for most purposes.

Students who have special difficulty in choosing a major and/or who have serious educational or personal problems may seek assistance from the college counselor. This assistance consists of individual testing beyond that provided for all students, counseling, and referral to community agencies. The college also makes available to students a library of occupational, educational and vocational information, as well as catalogs from many senior educational institutions.

STUDENT SERVICES

HOUSING

South Western Oregon College is a "community college" and provides no dormitories or other living accommodations. The student and his parents must assume full responsibility for housing. The college will give students such information as it has available concerning living accommodations.

TRANSPORTATION ALLOWANCE

Students whose legally established residence is within the Southwestern Oregon Area Education District but more than 30 miles from the college campus may be reimbursed at the rate of 5c a mile for all mileage traveled beyond the 30-mile radius. Mileage is calculatd on the nearest direct main travel route as shown on State Highway Department mileage charts or county road maps. Students must make application for a transportation allowance early in each term on a special form available at the college office. Applications will not be accepted later than one week before the end of the term.

Students must be registered for a full-time program and complete the term satisfactorily (with regular attendance) to be eligible for the transportation reimbursement. Payment will be made after the end of each term.

BOOKSTORE

The bookstore is located at the administration building, providing textbooks, workbooks, and other required class supplies as a service to the students.

STUDENT ACTIVITIES

STUDENT GOVERNMENT

The students of the college are organized for self-government into the Associated Students of South Western Oregon College. Practical experiences in leadership and cooperative effort are highlighted by the student government, with faculty counseling, which follows democratic procedures. The governing body, Executive Council, of the Associated Students of South Western Oregon College, elected by the student body, consists of: president, vice-president, secretary, treasurer, and one student representative from each of the two college divisions.

Any member of the Associated Students is welcome at Council meetings and is entitled to bring matters of importance to the attention of the Executive Council.

The Associated Students sponsor and coordinate all activities such as assemblies, dances, social activities, and organizations which are directly related to the student body as a whole. Participation in these activities is recognized as a vital part of a college education. The individual and group development brought about by this participation enhances personal responsibilities, cultural appreciation, social confidence, and a cooperative atmosphere between students and faculty.

All students attending S.W.O.C. are automatically members of the Associated Students. Activities are financed by a stipulated part of the regular college fees as authorized by the College Board of Directors.

INTRAMURALS AND ATHLETICS

An intensive intramural program is provided for all students in college. This program includes regular schedules or tournaments in most activities. Students have the opportunity to participate in sports activities which are planned so that the student may become better acquainted with games which may be used in adult life and provide enjoyment and worthy use of leisure time.

South Western Oregon College is a member of the National Junior College Athletic Association. At the present the college is not affiliated with an intercollegiate athletic conference. Competition in various major and minor sports is arranged with comparable colleges, or with junior varsity teams from the larger schools.

PUBLICATIONS

The Associated Students publish a newspaper, The Southwester, and an annual, Lacustrian. Staff positions on these publications are open to students who register for the journalism sequence.

CLUBS

Clubs may be organized with the approval of the administration for any special group activities. Examples are the Associated Women Students and the Geographer's Club.

SOCIAL EVENTS

The Associated Students sponsor mixers, dances and other social events.

SCHOLASTIC STANDARDS FOR STUDENT ACTIVITIES

Students who choose to participate in extracurricular activities must maintain the following academic standards:

1. Carry an academic program of at least ten credit hours in Liberal Arts and Sciences or 15 clock hours in a Technical-Vocational pro-

gram during the term immediately preceding the activity and during these terms of participation in such activity. High school graduates may participate during their first term at S.W.O.C.

2. Maintain a satisfactory accumulative grade point average of 2.00 or better.

Students on probation will not be permitted to participate in activities. . Activities include class, associated student or club officers, staff members of student publications, and members of athletic, forensic or other teams representing the College.

Students entering S.W.O.C. via "transfer" may participate during their first term of attendance if they qualify according to the previously stated academic standards.

LIBERAL ARTS AND SCIENCES DIVISION

The Liberal Arts and Sciences Division and its courses represent the ancient and continuing effort of men to extend the range of their experience beyond the narrow limits of the time and place in which they find themselves at birth. To enjoy such a freedom, men must know all they can about themselves and their environment, both physical and social. The liberal arts and sciences are a group of studies designed to assist and direct the exploration of man's nature and his position in the world around him.

By the help of some of these studies, Western man is able to compare his own experiences with those of men in other times, places, and circumstances, and thus share in the inherited wisdom and satisfaction of mankind. Through others, we deepen and extend our knowledge of our physical environment. Knowledge—scientific, historical, and literary—is the indispensable condition of the good life of free men, of "the good society."

ENTRANCE REQUIREMENTS

There are no official entrance requirements, beyond the general entrance requirements of the college, for students intending to choose a major field of study within the Liberal Arts and Sciences Division.

Students intending to major in any of the natural sciences are, however, advised to present at least two units of high school mathematics and two units of high school science. Experience has proved that students who lack this preparation are handicapped in college work in science.

TRANSFER EDUCATION

Transfer (lower-division) courses parallel freshman and sophomore courses offered by major Oregon universities and four-year colleges. Students normally transfer to upper division (junior) standing at the end of the sophomore year, at whatever school they choose to continue. Students may arrange a general education program in the liberal arts, or they may plan a special course of study to meet particular needs.

South Western Oregon College's lower-division collegiate program offers credits transferable within the Oregon State System of Higher Education. The student planning to seek a degree in these institutions should familiarize himself with the catalog of the institution of his choice and with the specific requirements of his proposed major program. The faculty advisors of South Western Oregon College will gladly assist him in this planning. Certain professional course requirements may be met only on the campus of the institution offering the advanced program. Students in art, music, business and education curricula should be aware of these requirements.

The several institutions of the Oregon State System of Higher Education require that the student offer credit hours in each of the major academic divisions: the Humanities (language, literature and the arts); the Social Sciences; and the Sciences, in addition to the requirements of the major. A student at the South Western Oregon College can satisfy the state-wide health and physical education and English composition requirements and also elect to do work in each of these major divisions to meet the general institutional requirements. He may also satisfy the language requirements that certain degree programs demand. Students enrolling in elementary and secondary education and in general liberal arts curriculums will find most of the courses they need for lower division credit. They should, however, familiarize themselves with the catalog of the four-year institution they plan to attend, and keep in mind that the institutions might not accept more than 93 credit hours of lower division work upon transfer from a community college.

Courses now offered by South Western Oregon College include the following:

Anthropology
Art
Biology
Business Administration
Chemistry
Economics
English
Foreign Languages
Geography
Health and Physical Education
History
Journalism
Literature
Mathematics
Music
Physics
Political Science
Psychology
Sociology
Speech
Zoology

ASSOCIATE IN ARTS DEGREE

The Associate in Arts Degree is a nationally recognized award that is conferred upon those who complete the general requirements of the lower-division liberal arts program.

General requirements for the Associate in Arts Degree:

1. Not less than 93 term hours of lower division courses approved by the Oregon State System of Higher Education for transfer credit.
2. Grade point average minimum of 2.00 (C average).
3. English Composition: 9 term hours.
4. Health Education: HE 151, 2 term hours for men; HE 250, 3 term hours for women.
5. Physical Education: 5 term hours are required. Not more than one hour of credit may be earned in these courses in any one term.
6. Required year sequence in each of the following groups: Language and literature, science, and social science. A second year sequence must be chosen in one of the three groups. For a list of sequences that satisfy these requirements, see "Group Requirements" below.
7. At least one of the sequences must be numbered in the 200 series.
8. At least one sequence in language and literature must be in literature.
9. The second sequence in either science or social science must be taken in a different department.
10. A student must attend South Western Oregon College at least two terms (including the final term) before the Associate in Arts Degree is awarded, and must have completed 24 term hours at the college.

COURSE NUMBERING

Liberal Arts courses in the college catalog are numbered in accordance with courses throughout the State System of Higher Education.

1- 49 Courses which carry no credit toward a degree, or terminal courses that may not be used as transfer credits.

50- 99 Courses in the first year of foreign language, elementary algebra, and remedial courses.

100-110 Survey or foundation courses that satisfy group requirements in
200-210 the language and literature, science, and social science groups.

111-199 Other courses offered at first-year and second-year level. Norm-
211-299 ally, 100-199 numbers are considered freshman courses and 200-299 are considered sophomore.

GROUP REQUIREMENTS

A complete list of sequences approved for the satisfaction of requirements 6 through 9 above are listed below. These may be taken as electives also.

Language and Literature

English

Eng 101, 102, 103	Survey of English Literature, or	3 hrs. each
Eng 107, 108, 109	World Literature	3 hrs. each
Eng 201, 202, 203	Shakespeare	3 hrs. each

Languages (Applicable as a second literature sequence)

RL 101, 102, 103	Second-Year French	4 hrs. each
GL 101, 102, 103	Second-Year German	4 hrs. each

Science

General Science

GS 104, 105, 106	Physical Science Survey	4 hrs. each

Biology

Bi 101, 102, 103	General Biology	4 hrs. each

Chemistry

Ch 101, 102, 103	Elementary Chemistry	4 hrs. each
Ch 201, 202, 203	General Chemistry	3 hrs. each
Ch 204, 205, 206	General Chemistry Laboratory	2 hrs. each

Mathematics

Mth 100	Intermediate Algebra	4 hrs.
Mth 101	College Algebra	4 hrs.
Mth 102	Trigonometry	4 hrs.
Mth 200, 201, 202, 203	Calculus with Analytic Geometry (any three of this group)	4 hrs. each

Physics

Ph 101, 102, 103	Essentials of Physics	3 hrs. each
Ph 201, 202, 203	General Physics	4 hrs. each

Social Science

General Social Science

SSc 101, 102, 103	Survey of the Social Sciences	3 hrs. each

Anthropology

Anth 101,102, 103	General Anthropology	3 hrs. each
Anth 207,208, 209	Introduction to Cultural Anthropology	3 hrs. each

Economics

Ec 201, 202, 203	Principles of Economics	3 hrs. each

Geography

Geog 105, 106, 107	Introductory Geography	3 hrs. each

History

Hst 101, 102, 103	History of Western Civilization	3 hrs. each
Hst 201, 202, 203	History of the United States	3 hrs. each

Political Science

PS 201, 202, 203	American Government	3 hrs. each

Psychology

Psy 201, 202	General Psychology	3 hrs. each
Psy 204	Psychology of Adjustment	3 hrs. each
Psy 205	Applied Psychology	3 hrs. each

Sociology

Soc 204, 205, 206	General Sociology	3 hrs. each

LOWER-DIVISION GENERAL EDUCATION

This curriculum is intended to be broad and general in scope. Students completing two years' work and fulfilling all requirements normally select a major in a specialized field only at the end of the sophomore year when they transfer to a school which is authorized to grant a baccalaureate degree.

For students who plan to complete work for a bachelor's degree, the two lower-division years provide a general education and a foundation for specialization during the junior and senior years in some field in the liberal arts and sciences or in a professional or technical curriculum.

For students uncertain about their educational or professional goals, the lower-division offers the opportunity to explore several fields of study to help determine special interests and aptitudes. The college offers such students the opportunity of taking the Standard Aptitude Test administered by the Counseling Center.

For students who plan to complete no more than two years of college, the lower-division offers a terminal program suited to the needs of the individual, balancing cultural and vocational courses as preparation for intelligent and useful citizenship.

COURSE DESCRIPTIONS

BUSINESS ADMINISTRATION

BA 211, 212, 213 Principles of Accounting — **3 hours each term**

Introduction to field of accounting, technique of account construction; preparation of financial statements; application of accounting principles to practical business problems; proprieto ship studies from standpoint of single owner, partnership, and corporation.

BA 101 Introduction to Business — **4 hours**

Business organization, operation, and management intended to orient the student in the field of business and to help him determine his field of major concentration.

FINE ARTS

AA 195, 196, 197 Basic Design — **2 hours each term**

A three-term introductory sequence; a series of studio participation exercises involving the basic principles of design.

AA 201, 202, 203 Survey of the Visual Arts — **3 hours each term**

Cultivation of understanding and intelligent enjoyment of the visual arts through a study of historical and contemporary works; consideration of motives, media, and forms.

AA 290 Painting — **1-2 hours any term**

Instruction in the use of oil color, water color, or other media. Registration permitted any term but it is desirable that the work be started in the fall. Maximum credit: 6 hours.

AA 291 Drawing — **1-2 hours any term**

Training in observation and selection of significant elements. Registration permitted any term, but it is desirable that the work be started in the fall. Maximum credit: 6 hours.

Mus 111, 112, 113 Music Theory I — **4 hours each term**

Theory I and II are basic courses. They provide a thorough groundwork in the elements of music science — melodic, harmonic and rhythmic — taught through analysis of the styles of Bach, Haydn, Mozart, Beethoven, and other eighteenth and nineteenth century composers.

Mus 211, 212, 213 Music Theory II — **4 hours each term**

For description, see Mus 111, 112, 113.

Mus 190 Applied Music — **1 hour each term (maximum 6 hours)**

Individual instruction.

Mus 195 Band — **1 hour each term**
(No more than 6 hours total credit may be earned in Mus 195, 196, 197.)

Mus 196 Orchestra — **1 hour each term**
(No more than 6 hours total credit may be earned in Mus 195, 196, 197.)

Mus 197 Chorus — **1 hour each term**
(No more than 6 hours total credit may be earned in Mus 195, 196, 197.)

Mus 201, 202, 203 Introduction to Music and Its Literature — **3 hours each term**
Cultivation of understanding and intelligent enjoyment of music through a study of its elements, forms, and historical styles.

HEALTH AND PHYSICAL EDUCATION

HE 250 Personal Health — **2 hours any term**
Study of the personal health problems of college men and women, with emphasis on implications for family life. Mental health, communicable diseases, degenerative diseases, nutrition. Satisfies the college requirement in health education for women.

HE 252 First Aid — **3 hours winter or spring**
Study of first aid and safety procedures—for the individual, schools, athletics, and civilian defense; meets standard and advanced certification of the American Red Cross.

PE 180 Physical Education (Women) — **1 hour each term**
A variety of activities taught for physiological and recreational values. Special sections for restricted and corrective work. A total of five terms required for all lower-division women students. 3 hours a week.

PE 190 Physical Education (Men) — **1 hour each term**
A variety of activities taught for physiological and recreational values. Special sections for restricted and corrective work. A total of five terms required for all lower-division men students. 3 hours a week.

LANGUAGE AND LITERATURE

Eng 101, 102, 103 Survey of English Literature — **3 hours each term***
Study of the principal works of English literature based on reading selected to represented great writers, literary forms, and significant currents of thought. Provides both an introduction to literature and a background that will be useful in the study of other literatures and other fields of cultural history. Fall: Anglo-Saxon beginnings to the Renaissance; Winter: Milton to Wordsworth; Spring: Byron to present.

Eng 107, 108, 109 World Literature — **3 hours each term***
Study of the literary and cultural foundations of the Western world through the analysis of a selection of masterpieces of literature, ancient and modern, read in chronological order. The readings include continental, English, and American works.

***NOTE: A student may register in only one of above Literature sequence.**

Eng 201, 202, 203 Shakespeare — **3 hours each term**
Study of important plays—comedies, histories, and tragedies. Recommended for majors.

Eng 253, 254, 255 Survey of American Literature — **3 hours each term**
American literature from its beginning to the present day.

Wr 50 Corrective English — **No Credit**
One term course in the mechanics of English, required of freshmen who receive low ratings in an entrance placement examination. For such students, Wr 50 is a prerequisite for any other course in written English. 3 hours a week. Transfer credit not granted.

Wr 111, 112, 113 English Composition — **3 hours each term**
The fundamentals of English composition; frequent written themes. Special attention to correctness in fundamentals and to the organization of papers.

Wr 218 Creative Writing — **3 hours**

Opportunity and encouragement for those who wish to express themselves through literary mediums. Models of essays, short stories, and poetry are studied and original work is done in each of these branches of writing. Prerequisite: demonstrated skill in writing; Wr 111, 112.

GL 50, 51, 52 First-Year German — **4 hours each term**

Designed to provide a thorough grammatical foundation and an elementary reading knowledge of German, as well as an understanding of the spoken language.

GL 101, 102, 103 Second-Year German — **4 hours each term**

Review of grammar and composition; reading selections from representative authors; conversation.

J 215 Journalism Laboratory — **1 hour each term**

Work on the student publications. Given in coordination with J 216, 217, 218.

J 216 Reporting I — **2 hours**

Basics of gathering and reporting news, with emphasis on accuracy and clarity of writing. J 215 required in conjunction with this course.

J 217 Reporting II — **2 hours**

Accuracy and objectivity standards as well as reader appeal in writing. Methods of gathering and organizing material for multiple-source, multiple-fact stories. J 215 required in conjunction with this course. Prerequisite: J 216.

J 218 Copy Editing and Makeup — **2 hours**

Copy reading, heading writing, proofreading and makeup. (Recommended for advanced positions on the **Southwester.**) J 215 required in conjunction. Prerequisite: J 216 or consent of instructor.

RL 50, 51, 52 First-Year French — **4 hours each term**

An introduction to French, stressing reading and speaking. Exercises in elementary composition and grammar.

RL 101, 102, 103 Second-Year French — **4 hours each term**

Study of selections from representative authors; review of grammar; considerable attention to oral use of the language.

Sp 111, 112, 113 Fundamentals of Speech — **3 hours each**

Projects in extempore speaking. Primary emphasis on content and organization, with attention also to the student's adjustment to the speaking situation, effective delivery, audience motivation, and language of speech.

Sp 232 Group Discussion — **3 hours**

Preparing for, leading and participating in types of discussions used in various groups led by extension workers, technical and professional people, and teachers, in conferences, panels, lecture-forums, and symposiums; strong emphasis on problem-solving and interpersonal relations. Prerequisite: Sp111 or instructor's consent.

Sp 237 Argumentation — **3 hours**

Analysis; brief-drawing; collection and use of evidence; deductive and inductive reaing; types of argument; fallacies; construction of speeches. Prerequisite: Sp 111 or instructor's consent.

Sp 238 Persuasion — **3 hours**

Study of models; composition exercises; writing a term speech; mastery of audience psychology and effective style. Prerequisite: Sp 111 or instructor's consent.

SCIENCE AND MATHEMATICS

GS 101, 102, 103 General Biology — **4 hours each**

Biological principles applied to both plants and animals. 3 lectures; 1 three-hour laboratory period.

Bot 201, 202, 203 General Botany — **3 hours each**

How plants get their food, grow, differentiate, and reproduce. Bot 201: seed plants; Bot 202: lower plants; Bot 203: identification of native plants, use of keys, floral morphology.

Ch 204, 205, 206 General Chemistry — **5 hours each**

Professional course for students majoring in science, health sciences, and engineering. 3 lectures; 2 three-hour laboratory periods.

Ch 226, 227 Elements of Organic Chemistry — **5 hours each**

Chemistry of the carbon compounds; the aliphatics, aromatics, and derivatives. For predental, preveterinarian, and medical technology 3 lectures, 2 three-hour laboratory periods.

Ch 234 Quantitative Analysis — **5 hours**

Principles of gravimetric analysis and volumetric analysis. Designed for predental, premedical, and medical technology students. 3 lectures, 2 three-hour laboratory periods. Prerequisite: Ch 206.

GS 104, 105, 106 Physical Science — **4 hours each**

Fundamental principles of physics, chemistry, astronomy, and geology; development and application of the scientific method. 3 lectures; 1 two-hour laboratory period.

Mth 10 Elements of Algebra — **No Credit**

A remedial course intended primarily for students entering with less than one year of elementary algebra. Four class meetings a week. Transfer credits not granted.

Mth 100 Intermediate Algebra — **4 hours**

Functions and graphs, linear equations in two unknowns, quadratic equations, negative and fractional exponents, radicals, progressions, binomial theorem, logarithmic computation. Prerequisite: one year of high school algebra or Mth 10. No credit allowed if taken after Mth 101 or any more advanced mathematics course.

Mth 101 College Algebra — **4 hours**

Review of high school algebra emphasizing number system, logarithms, progressions, binomial series, theory of equations, determinants. Prerequisite: one and one-half years of high school algebra or Mth 100.

Mth 102 Trigonometry — **4 hours**

Trigonometric functions for general angles, solution of triangles, addition formulas, trigonometric equations, graphs, complex numbers, and De Moivre's theorem. Prerequisite: Mth 101.

Mth 111, 112 Mathematics for Elementary Teachers — **3 hours each**

Basic concepts of mathematics. For prospective elementary teachers.

Mth 200, 201, 202, 203 Calculus with Analytic Geometry — **4 hours each**

Mth 200: Differentiation and integration: applications to rates, area, volumes. Mth 201: Applications in mechanics; plane analytic geometry, elementary transcendental functions. Mth 202: Techniques of integration, vectors, solid analytic geometry. Mth 203: Partial differentiation, multiple integration, infinite series. Standard sequence for students in science and engineering.

Phy 201, 202, 203 General Physics — **5 hours each**

Standard first-year college physics. 3 lectures; 1 recitation; 1 three-hour laboratory period. Prerequisite: Mth 101, 102, or equivalent.

Z 201, 202, 203 General Zoology — **4 hours each**

For zoology majors and premedical, predental, prenursing, prepharmacy students and others. 3 lectures; 1 three-hour laboratory periods.

SOCIAL SCIENCE

Anth 101, 102, 103 General Anthropology — **3 hours each term**

Fall: man as a living organism; biological evolution; the human life cycle. Winter: evolution of man; human races, nature and problems. Spring: the development of culture; organization of culture; man, participant in and observer of culture.

Anth 207, 208, 209 Introduction to Cultural Anthropology — **3 hrs each term**

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.

Ec 201, 202, 203 Principles of Economics — **3 hours each term**

Principles that underlie production, exchange, distribution, etc. Must be taken in sequence. Prerequisite: sophomore standing.

Geog 105, 106, 107 Introductory Geography — **3 hours each term**

A general introduction to the field of geography, in sequence as follows: Geog 105, physical geography; Geog 106, regional survey of the world; Geog 107, cultural geography.

Hst 101, 102, 103 History of Western Civilization — **3 hours each term**

Origins and development of Western Civilization from ancient times to the present.

Hst 201, 202, 203 History of the United States — **3 hours each term**

From colonial times to the present.

PS 201, 202, 203 American Government — **3 hours each term**

201: principles of American constitutional system, political process, and organization of national government; 202: powers and functions of national government; 203: practical operation and contemporary reforms in government at state and local level.

PS 205 International Relations — **3 hours**

Analysis of the nature of relations among states, with particular reference to the contemporary international issues; a study of motivating factors, including nationalism, imperialism, economic rivalries, quest for security, etc.; study of the problem of national sovereignity and its relation to international cooperation.

Psy 111 Personality and Development — **3 hours**

Self-understanding and development; emphasis upon habits, attitudes, emotional problems, and efficient learning techniques.

Psy 201, 202, 203 General Psychology — **3 hours each**

Introductory study of behavior and conscious processes. Survey of experimental studies of motivation, learning, thinking, perceiving, and individual difference.

Psy 204 Psychology of Adjustment — **3 hours**

The nature and origins of differences in personality; means of making desired changes.

Psy 205 Applied Psychology — **3 hours**

Applications of psychology in personnel selection and training; the planning and design of environmental situations for optimal human functioning. Prerequisite: Psy 201, 202.

Soc 204, 205, 206 General Sociology — **3 hours each term**

The basic findings of sociology concerning the individual, culture, group life, social institutions, and factors of social change. Prerequisite: sophomore standing or consent of instructor.

TECHNICAL-VOCATIONAL AND GENERAL EDUCATION

Technical-Vocational Curricula — **Practical Nurse Training**

Occupational Extension — **Business Education**

Apprentice Training — **General Cultural (Adult)**

Technical-Vocational education includes selected and organized experiences which will prepare an individual for satisfying and effective employment and for membership in a community, according to his capacity. This preparation involves related technical education together with the specific training necessary for entry into an occuptional field.

This plan of technical education assures the young person the means of supporting himself and prepares him for making a contribution to the world's work. It enables him to obtain through his own efforts the higher standard of living possible in a democratic society.

Technical-Vocational Education curricula are all post high school and are terminal. Associate in Science Degrees, Diplomas and Certificates will be issued for satisfactory completion of these programs.

The college is one of several school systems giving technical training in Oregon. This will enable students to transfer to other localities and continue their education with a minimum of transfer problems. Technical-Vocational credits are not transferable to four-year baccalaureate degree-granting colleges and universities.

ENTRANCE REQUIREMENTS

There are no entrance requirements beyond the general entrance requirements of the college for students intending to choose a course of study within the Technical-Vocational Division. Eligibility may be established through an evaluation of previous education, work experience, and appropriate testing.

DEGREE AND CERTIFICATE REQUIREMENTS

The Associate in Science Degree is offered by many technical schools in all parts of the United States. It is attaining status in higher education and recognition in business and industry.

General requirements for the Associate in Science Degree:

1. Minimum of 90 units of specified courses (see particular curriculum).
2. Grade-point average minimum of 2.00 (C average).
3. Complete the required courses as listed in the specific curricula. This must include 18 term units of approved General Education subjects unless this requirement is specifically reduced by the State Department of Education.
4. Must attend S.W.O.C. at least two terms (including the last term) before degree is awarded, and must have completed 24 units at S.W.O.C. Technical units are not necessarily equivalent to collegiate term hours.

Certificates of attainment may be issued on request for individual courses completed, and these may be credited toward obtaining a curriculum diploma.

Previous training or work experience will be evaluated for credit toward receiving a diploma by tests covering the training involved, upon request by the individual.

BUSINESS AND COMMERCE

The business programs train men and women of all ages for their initial jobs and for in-service training to improve present business skills.

DEGREE CURRICULA

Students may qualify for the Associate in Science Degree in the following two-year programs which train for entry positions leading to mid-management positions in business enterprises:

ACCOUNTING TECHNOLOGY	EXECUTIVE SECRETARIAL
BUSINESS TECHNOLOGY	LEGAL SECRETARIAL
	MEDICAL SECRETARIAL

ONE YEAR DIPLOMA CURRICULA

Students may prepare in one year for general clerical jobs in business offices such as bookkeepers, clerk-typists, payroll clerks, stock record clerks, and stenographic positions. See the detail requirements for the following curricula:

STENOGRAPHY	BOOKKEEPING-CLERICAL

BUSINESS EXTENSION COURSES

The evening program in the Technical-Vocational Business and Commerce Department is designed to further four major purposes.

1. To provide management training to area businessmen and women.
2. To provide opportunities for pre-employment and occupational training in the general office and stenographic fields. Courses available include typing, shorthand, office machines, bookkeeping, accounting and others.
3. To provide an opportunity for students to complete requirements for certificates and Associate in Science Degrees by making electives and other courses available for evening study. (Refer to the list of courses available for evening study and to the list of course descriptions for courses offered in the Business Technology Curricula.)
4. To provide a degree of specialized training in the general areas of merchandising, management, real estate and insurance, small business operation, accounting, fashion and other areas for regular business students and interested residents.

Secretarial students interested in preparing themselves to complete the requirements for Certified Professional Secretary (C.P.S.) can make special arrangements to select business courses in law, management, and other areas covered in the comprehensive C.P.S. examinations. A Certified Professional Secretary in the business department of South Western Oregon College is available for counseling.

MANAGEMENT TRAINING

The Administrative Management Programs offered by South Western Oregon College provide owners and managers of smaller businesses with an opportunity to increase their management skills.

The college cooperates with the Small Business Administration in co-sponsoring programs which will provide for management and technical assistance to business. Over 300 educational institutions in the United States work with this federal agency.

Some areas of interest to local businessmen are:

1. Administrative Management Seminar
2. Small Business Operation
3. Small Business Records Management
4. Uniform Commercial Code
5. Financing a Business
6. Improving Sales
7. Taxation

Specific programs offered in this area are arranged on the basis of interest, advice from businessmen, and cooperation with the Small Business Administration. Lectures, group discussions, case studies, and work groups are used as methods of instruction.

ACCOUNTING TECHNOLOGY

This curriculum offers thorough and practical training for a position as bookkeeper, payroll clerk, junior accountant, or assistant to an accountant or auditor. Positions with governmental agencies and in public accounting are also filled by graduates of this curriculum.

Minimum Requirements for the Associate in Science Degree

First Year

	Units
General Education	9
Communication Skills 1.100, 1.102	6
Accounting 2.766, 2.767, 2.771, 2.768	15
Business Math 2.250, 2.252	6
Office Machines 2.519, 2.521	6
Typing 2.501	3
Business Communications 2.504	3

Second Year

General Education	7
Accounting 2.769, 2.772, 2.773, 2.774, 2.326, 2.331	20
Business Law 2.320, 2.321, 2.322	9
Credit Procedures 2.301	3
Statistics 2.327	3
Office Admin. & Supervision 2.259	3
Elective	3

BUSINESS TECHNOLOGY

This curriculum is a result of investigation of needs of the business community. The primary aim is to provide men and women with a basic core of knowledge which will enable them to make decisions and advance rapidly in almost every kind of business, such as retail sales, wholesale merchandising, insurance operations, motels, hotels and real estate.

Minimum Requirements for the Associate in Science Degree

First Year

	Units
General Education	11
Communication Skills 1.100, 1.102	6
Business Math 2.250, 2.252	6
Accounting 2.766, 2.767, 2.768	12
Office Machines 2.519	3
Business Communications 2.504	3
Marketing 2.305	3
Labor-Management Relations	3
Elective	3

Second Year

General Education	5
Business Law 2.320, 2.321, 2.322	9
Marketing 2.330, 2.264	6
Credit Procedures 2.301	3
Business Statistics 2.327	3
Analysis of Financial Statement 2.326	3

APPLICATION FOR ENROLLMENT

SOUTHWESTERN OREGON COLLEGE

2750 COLORADO ST., NORTH BEND, OREGON

NAME _____ SEX _____ HUSBAND OR WIFE'S NAME _____
Family Name First Name Maiden Name

PERMANENT LEGAL ADDRESS _____
Number Street City County School Dist. State

LOCAL ADDRESS IF DIFFERENT _____
Number Street City Community Months There

PLACE OF BIRTH _____ DATE OF BIRTH _____ AGE _____

VETERAN? Yes _____ No _____ Will you enroll under Veterans Benefits? Yes _____ No _____; Rehabilitation? Yes _____ No _____

MARRIED? _____ NO. DEPENDENTS _____ CITIZENSHIP: U.S. Born _____, Naturalized _____ Other _____

MINOR STUDENTS MUST LIST PARENTS OR GUARDIAN, OTHERS LIST NEXT OF KIN.

_____ _____ _____
Father or Guardian Street or Box City Occupation

_____ _____ _____
Mother or Guardian Street or Box City Occupation

_____ _____ _____
Next of Kin Street or Box City Occupation

If the address of your parent or guardian is in a district which operates a junior college, you must obtain a permit from that college in order to attend S.W.O.C. ☐

HIGH SCHOOL TRAINING

SCHOOL	LOCATION	DATE OF GRADUATION

I have ☐, have not ☐, taken the College Entrance Examination Board Scholastic Aptitude tests (C.E.E.B.).

COLLEGES PREVIOUSLY ATTENDED

NAME	LOCATION	NUMBER OF TERMS ATTENDED
1.		
2.		

I have requested a transcript of my record sent from the above schools. _____ (H.S. senior send after graduation)
Date

PERSONAL REFERENCES

NAME	P. O. ADDRESS	POSITION
1.		
2.		
3.		

I hereby apply for enrollment in Southwestern Oregon College for the _____ term starting in the month of _____, 19_____; for instruction in the department checked below:

☐ LIBERAL ARTS (COLLEGE TRANSFER)

TECHNICAL-VOCATIONAL (NOT COLLEGE TRANSFER)

- ☐ BUSINESS AND COMMERCE: Curriculum, _____
- ☐ CIVIL AND STRUCTURAL ENGINEERING TECHNOLOGY OR SURVEYING OR DRAFTING
- ☐ FOREST PRODUCTS TECHNOLOGY ☐ MECHANICAL TECHNOLOGY ☐ PRACTICAL NURSE TRAINING
- ☐ ELECTRONIC OR ELECTRICAL TECHNOLOGY ☐ OTHER _____

My educational goal is: 1_____ Transfer to a four year school for B.A. or B.S. Degree. 2_____ Vocational diploma. 3_____ Other (Be specific) _____

The above is correct to the best of my knowledge.
I hereby apply for admission as a full-time, _____, part-time _____ curricular student.

Date _____ _____
Signature of Applicant

IMPORTANT— It is the obligation of the prospective student to request transcripts (two copies) from high schools and all colleges previously attended. If complete transcripts are not on file, the student may be only temporarily admitted, or refused admission, until the transcripts are received and evaluated.

The News Press, Coos Bay, Oregon

Office Admin. & Supervision 2.259	3
Project Study 2.260	4
Electives	9

EXECUTIVE SECRETARIAL

This curriculum is planned for students who wish to prepare for positions as professional secretaries in business, industrial, and governmental offices. It includes a combination of general education and skill-building courses which provide a high degree of occupational competence. Graduates qualify for entry employment leading to positions as private secretaries and executive secretaries as well as for positions in federal or state civil service.

Minimum Requirements for the Associate in Science Degree

First Year

	Units
General Education	9
Communication Skills 1.100, 1.102	6
Typing 2.501, 2.503, 2.505	9
Shorthand 2.541, 2.543, 2.545	12
Business Math 2.250	3
Office Machines 2.519	3
Filing 2.755	2
Business Communications 2.504	3
Elective	3

Second Year

General Education	7
Secretarial 2.507, 2.547, 2.549	11
Busines Law 2.320, 2.321, 2.322	9
Credit Procedures 2.301	3
Office Procedures 2.258	3
Office Admin. & Supervision 2.259	3
Accounting 2.766	4
Project Study 2.260	4
Elective	3

LEGAL SECRETARIAL

The curriculum provides a balance in the secretarial skills and in the special and general knowledge a trained legal secretary needs. Graduates may secure positions as legal secretaries with attorneys, judges, and legal consultants or may continue their study in order to become conference or court reporters.

Minimum Requirements for the Associate in Science Degree

First Year

	Units
General Education	9
Communication Skills 1.100, 1.102	6
Typing 2.501, 2.503, 2.505	9
Shorthand 2.541, 2.543, 2.545	12
Business Math 2.250	3
Office Machines 2.519	3
Filing 2.755	2
Business Communications 2.504	3
Elective	3

Second Year

General Education	7
Secretarial 2.547, 2.507	7
Legal 2.786, 2.783	7
Business Law 2.320, 2.321, 2.322	9
Credit Procedures 2.301	3
Office Procedures 2.258	3

Office Admin. & Supervision 2.259	3
Accounting 2.766	4
Project Study 2.260	4

MEDICAL SECRETARIAL

This curriculum is of special interest to young women with good mental and personal traits and a sincere desire to be of service to the community.

Part time work experience, in addition to technical and general background training, is provided in the office of a doctor, dentist, or hospital. This curriculum leads to such positions in the medical field as receptionist-secretary, X-ray secretary and record clerk, hospital records clerk, and secretary in the office of a physician, dentist, or hospital.

Minimum Requirements for the Associate in Science Degree

First Year

	Units
General Education	9
Communication Skills 1.100, 1.102	6
Typing 2.501, 2.503, 2.505	9
Shorthand 2.541, 2.543, 2.545	12
Business Math 2.250	3
Office Machines 2.519	3
Filing 2.755	2
Business Communications 2.504	3
Elective	3

Second Year

General Education	7
Secretarial 2.547, 2.507	7
Medical 2.784, 2.785	7
Business Law 2.320, 2.321, 2.322	9
Credit Procedures 2.301	3
Office Procedures 2.258	3
Office Admin. & Supervision 2.259	3
Accounting 2.766	4
Project Study 2.260	4

STENOGRAPHY (one year curriculum)

This training is intended to prepare students for first-time employment in a secretarial position. Emphasis is on shorthand and other stenographic and secretarial skills and an understanding of the secretary's relationship to employer and public.

Minimum Requirements for the One-year Certificate

General Education (1.100, 1.102, 1.506, 1.608)	12
Mathematics (2.250)	3
Secretarial (2.541, 2.543, 2.545)	12
General Office (2.501, 2.503, 2.504, 2.505, 2.519, 2.521, 2.258, 2.755)	24

BOOKKEEPING-CLERICAL (one year curriculum)

For students wishing to prepare themselves for beginning positions in business, the one-year bookkeeping-clerical program is available. This course offers three terms in selected business education courses with primary emphasis on beginning and intermediate accounting.

A certificate is awarded to those meeting graduation requirements. Students may transfer to a two-year program at completion of one year of study.

Minimum Requirements for the One-year Certificate

General Education (1.100, 1.102, 1.506, 1.608)	12
Mathematics (2.250, 2.252)	6
Accounting (2.766, 2.767)	8
General Office (2.501, 2.503, 2.504, 2.505, 2.519, 2.521, 2.258, 2.755)	24

CIVIL AND STRUCTURAL ENGINEERING TECHNOLOGY

(2-Year Program)

This program of courses is aimed at providing the fundamental background and training to prepare the student for positions in entry classifications leading to civil engineering technician, surveyor, construction estimator, inspector, contractor assistant, cost estimator and related jobs.

Opportunities for employment in this field are available with construction contractors, engineering firms and consultants, and local, county, state and federal agencies.

Applicants should have completed one year of high school algebra.

Minimum Requirements for the Associate in Science Degree

First Year

	Units
Applied Physics (6.370, 6.371)	8
Communication Skills (1.100, 1.102)	6
Drafting (4.101, 4.105, 6.127)	6
Engineering Problems (6.135, 6.136)	2
Surveying (6.101, 6.103, 6.500)	9
Technical Mathematics (6.261, 6.262, 6.266)	12
Applied Mechanics and Strength of Materials (6.107, 6.109)	6

Second Year

Mapping (6.131, 6.133)	4
Applied Mechanics and Strength of Materials (6.111, 6.128)	5
Hydraulics (6.112, 6.114)	6
Construction Practices (6.108, 6.120, 6.123, 6.125, 6.130)	14
Estimating Codes and Contracts (6.110, 6.118, 6.122)	7
Structural Drafting (4.111)	2
Soil Mechanics (6.124)	3
General Education Electives	3

GENERAL DRAFTING

The one-year General Drafting Curriculum is designed to prepare students for employment in drafting jobs that require a broad knowledge of the fundamental aspects of drafting with a minimum of specialization. Such subjects as Mathematics, Practical Physics, Communication Skills, and Industrial Economics are included in the curriculum in order to provide the student with supporting background which will enable him to work intelligently with engineers. The draftsman's function is to interpret the engineer's designs to the machinist, the builder, and the operator. An efficient, young draftsman has many potential positions to which he may advance.

Minimum Requirement for Graduation

	Units
Drafting (4.100, 4.101, 4.105, 4.109, 4.115, 4.119)	18
Mathematics (4.202, 4.204)	8
Practical Physics (4.300, 4.302, 4.304)	12
Communication Skills and Report Writing (1.100, 1.102, 6.126)	9
Labor-Management Relations (2.256)	3
General Education Elective	3

GENERAL SURVEYING

The one year General Surveying curriculum is designed to prepare students for employment as assistants to engineers and surveyors.

Minimum Requirements for Graduation

	Units
Mathematics (4.202, 4.204)	8
Drafting (4.101, 4.105)	4
Mapping (4.410)	2
Surveying (4.400, 4.401, 4.402)	12
Practical Physics (4.300, 4.302, 4.304)	12
Communication Skills (1.100, 1.102)	6
Technical Report Writing (6.126)	3
General Education Electives	3

ELECTRONIC TECHNOLOGY

(2-Year Program)

This program of courses is planned to provide the basic principles, theory and laboratory work in the practical phases of electronics that a technician needs to know. This training is such as to prepare the beginning technician for understanding and knowledge of a highly skilled aspect of electronics, so that he can work under the supervision of an engineer or the engineering departments where this technical competence is needed.

Satisfactory completion of the two-year program qualifies the person for employment as an electronic engineering technician, electronic instrument technician, electronic lab technician, guided missile technician, industrial electronic technician, microwave radio technician and radio technician. The rapid expansion of the electronic industry in this "Space Age" has created a great demand for engineering technicians in electronics.

Opportunities and demand for employment in this field are greater than the supply of trained personnel and will continue at this rate because of the unusual expansion of the electronics industry. Job opportunities are available in government agencies involved in missile programs and space exploration. Automation developments in business and industry offer opportunities for trained technicians.

Applicants must have completed high school or the equivalent and should have successfully completed a course in algebra. An entrance test must be passed to be admitted.

ELECTRONIC ENGINEERING TECHNICIAN

Minimum Requirements for the Associate in Science Degree

First Year

	Units
Applied Physics (6.370, 6.371)	8
Drafting (4.101, 4.103, 6.127)	6
Engineering Problems (6.135, 6.136)	2
Electrical Theory (6.200, 6.202, 6.204, 6.205)	13
Mathematics (6.261, 6.262, 6.266)	12
Vacuum Tubes and Transistor Analysis	4
Communication Skills (1.100, 1.102)	6

Second Year

Advanced Elecrtonic Systems (6.212, 6.213, 6.214, 6.215, 6.216, 6.234)	15
Industrial Electronics and Automation (6.218, 6.236, 6.244, 6.246, 6.247)	12
Industrial Television (6.228,, 6.235)	4
Data Processing (6.240)	3
Microwaves (6.242)	3
Mathematics (6.115)	4
General Education Electives	3

RADIO AND TELEVISION SERVICING OPTION

Minimum Requirements for Graduation

Electrical Theory (4.922)	8
Electronic Systems (4.900, 4.901, 4.912, 4.913, 6.201)	7
Radio and Television Servicing (4.923, 4.924, 4.925, 4.926, 4.928)	23
Communication Skills (1.100, 1.102)	6
Mathematics (4.202, 4.204)	8
Small Business Operation (2.310)	3

FORESTRY TECHNOLOGY

WOOD INDUSTRIES TECHNOLOGY

The college is presently working with industry in developing a program of studies designed to prepare persons for employment in skilled and technical occupations related to the wood-producing and wood-using industries.

It is planned that a Wood Industries curriculum will be offered at South Western Oregon College beginning fall term, 1964. The program will include courses designed to provide the scientific knowledge and technical skills determined by industry to be necessary for successful employment in forest products occupations in the state.

MECHANICAL DEPARTMENT

The Mechanical Department curricula are under careful evaluation and reorganization. The minimum requirements for graduation from any of the programs as listed below may be changed considerably during the year. Students interested in study in any of these fields should consult the Dean of the Technical-Vocational Division before making any specific plans regarding a course of study.

AUTOMOTIVE MECHANICS

The automotive mechanics curriculum offers broad basic instruction and shop practice in the fundamental principles of automotive service. This training can lead to employment in entrance occupations in the automotive service field. The method of instruction used at South Western Oregon College stresses the laboratory approach. Various components of the automobile are used for demonstration and practice. In the second year, greater emphasis is given work on customer automobiles with emphasis on diagnosis and correction of mechanical faults. The curriculum includes some general courses which aim to assist the student in his development as a citizen. The aim of the course goes beyond the primary purpose of gaining, for the student, the knowledge and skill needed for immediate employment and tries to provide for the knowledge and habits of work which will lead to broad occuptional opportunities.

Entrance Requirements: There are no special requirements other than the general requirements of the college and mechanical aptitude tests.

DIESEL

The first year of the Diesel Mechanics Option is the same as Automotive. In the second year there are some specialized courses included which apply to the special design and operation of diesel engines and equipment. These special courses will not be offered during the 1963-64 school year.

LIGHT POWER EQUIPMENT MECHANICS

This course is designed to give students an understanding of the construction, operation and the maintenance of small air-cooled engines, both four-cycle and two-cycle types. There has been a great increase in the use of these engines in all types of machines, both industrial and for personal and home use. The maintenance of this equipment is becoming a major occupation. The student will study the application of the power units in many different machines, such as industrial conveyors, concrete mixers, and personal vehicles. The uses extending to the home will include such things as lawn mowers, outboard motors for boats, garden tractors and many others.

The first term is the same as the automotive course. This will provide the students with some basic background information. In the second and third terms, special courses are introduced in addition to the general subjects of Communication Skills, Labor-Management Relations, Practical Physics. In the shop, students will be given practical experieince in disassembly and assembly of small engines, including the diagnosis of trouble and the procedures for testing and repair.

AUTOMOTIVE MECHANICS

Minimum Requirement for the Associate in Science Degree

First Year

	Units
Chassis and Brake Systems (3.300, 3.302, 3.534, 3.535)	6
Internal Combustion Engines (3.304, 3.305, 3.306, 3.307)	7
Welding (4.150)	2
Practical Physics (4.300, 4.302, 4.304)	12
Mathematics (4.202)	4
Fuel Systems and Carburetion (3.310, 3.311, 3.312, 3.313)	6
Power Trains (3.316, 3.317)	4
Electrical Systems (3.308, 3.309)	4
General Education Electives	6

Second Year

Electrical Systems (3.322, 3.323)	4
Front-end Alignment (3.318, 3.319)	3
Mechanical Methods Lab (3.329, 3.331, 3.333)	9
Fluid Mechanics and Fuels (3.545)	2
Automatic Transmissions (3.326, 3.327)	4
Power Steering (3.314)	2
Tune-up and Diagnosis (3.324, 3.325)	4
Repair Estimating (3.338)	2
Service Management (3.332)	2
Communication Skills (1.100, 1.102)	6
Labor-Management Relations (2.256)	3
General Education Electives	6

DIESEL MECHANICS OPTION

Second Year

Fluid Mechanics and Fuels (3.545)	2
Front-end Alignment (3.318, 3.319)	3
Fuel Injection Systems (3.804, 3.805, 3.806, 3.807)	7
Diesel Engines (3.800, 3.801, 3.802, 3.803, 3.811)	11
Auxiliary Systems (3.812, 3.813)	3
Diesel Tune-up and Diagnosis (3.808, 3.809)	4
Service Management (3.332)	2
Welding (4.151)	2
Power Steering (3.314)	2
Labor-Management Relations (2.256)	3
Communication Skills (1.100, 1.102)	6
General Education Electives	6

LIGHT POWER EQUIPMENT OPTION

Minimum Requirements for Graduation

Auto Chassis (3.300, 3.534)	3
Internal Combustion Engines (3.304, 3.305, 3.536, 3.537, 3.538, 3.539)	9
Mathematics (4.202)	4
Practical Physics (4.300, 4.302, 4.304)	12
Welding (4.150, 4.151)	4
Fuel Systems and Carburetion (3.310, 3.311)	3
Light Power Equipment (3.540, 3.541)	3
Advanced Repair Service (3.542)	1
Blueprint Reading (3.339)	1
Small Business Operation (2.310)	3
Labor-Management Relations (2.256)	3
Communication Skills (1.100, 1.102)	6

PRACTICAL NURSING

This 48-week program of training is open to persons between 18 and 50 years of age who are high school graduates or the equivalent. (A GED test and certificate is acceptable.) The program is accredited by the Oregon State Board of Nursing. Graduates are eligible to take an examination given by the Board of Nursing and those who pass this examination become licensed practical nurses (LPN) and are eligible for licensing by endorsement in other states of the nation. A licensed practical nurse is prepared to give nursing care to patients who do not need the constant attention of a professional nurse. The class instruction and hospital clinical experience are under the direct supervision of the college instructor and registered nurses of the hospital. The licensed practical nurse is also under the direct supervision of professional registered nurses or licensed physicians.

Students are taught to assist in the care of medical and surgical patients, care of mothers and new born babies, care of children, care of the chronically ill and convalescent patient. The first eight weeks of the course are spent in the classroom—6 hours a day, five days a week. During the following four weeks, part of the time is spent becoming acquainted with the hospital routine. After twelve weeks, the students begin their assigned clinical practice in the various departments of the hospitals. During this time, students will spend one day a week in class with the nurse instructor.

During the clinical practice period in the hospital, the student nurses will be assigned duties by the college instructor and their schedule will be similar to that of regular nursing employees. This means that Saturdays and Sundays are not automatically days off. The nursing program calendar does not follow the academic calendar in the front of this catalog. See schedule below.

PRACTICAL NURSE TRAINING SCHEDULE:

September 8, Tuesday	1st Period Registration & Fee Payment; Classes begin
November 2, Monday	Hospital Orientation begins
November 30, Monday	Clinical Practice begins
December 28, Monday	Registration for 2nd period
April 19, Monday	Registration for 3rd period
August 5, Friday	End of Training
August 8, 1965, Sunday	Graduation & Capping Ceremony
September 7, 1965, Monday	Registration, 1965-66; Classes begin

GRADUATION REQUIREMENTS:

Candidates for graduation from the Practical Nursing curriculum shall have developed the personal and professional characteristics which, in the opinion of the college officials, will enable them to function effectively in the role of a practical nurse.

Professional & Vocational Relationships (5.501)	78 Clock Hours
Nursing Care in Conditions of Illness (5.502)	129 Clock Hours
Normal Health, Growth & Development (5.503)	128 Clock Hours
Nursing Skills (5.504)	181 Clock Hours
Total Technical Information	516 Clock Hours
Clinical Practice (5.525) (see course listings for description of content)	1232 Clock Hours

Applications for admission to Practical Nurse Training must be filed by May 1st. (Approximately 3 months prior to the start of the 48-week program each fall.)

OCCUPATIONAL EXTENSION

Under this general classification are grouped a number of specific programs designed to provide opportunities for adult citizens to receive training which will assist them to improve their general cultural background. Many of these courses are given in the evening, but some are scheduled in the daytime. The convenience of the students is the determining factor. Persons interested in any particular course should make their wants known to the college administration. Term schedules of classes are available in September, December, March and May (Summer Session).

APPRENTICESHIP

Related technical information classes are offered to those registered as apprentices with the Oregon State Apprenticeship Council. They are not open to others. Classes are available for Apprenticed Carpenters, Inside Wiremen, Plumbers, Maintenance Electricians, Sheetmetal Workers, Power Linemen and others.

BUSINESS AND DISTRIBUTIVE EDUCATION

For details of these courses see "Business Extension Courses" under the section on Business and Commerce. Courses are numbered in the "nine" series (9.700 to 9.750).

HOME ECONOMICS EDUCATION

Daytime and evening classes are available to aid the homemaker in improving conditions in the home.

There are no special requirements for admission other than interest and ability to do the work. Students are registered as "special" students and are not required to submit a formal application. Specific courses are listed in the group from 9.900 to 9.949.

GENERAL ADULT EDUCATION

Various courses are offered such as foreign languages for conversational purposes, driver training for adults, English for foreign born, etc. See the course listings between 0.100 to 0.999.

COURSE DESCRIPTIONS

1.100 Communication Skills (5 Class Hrs/Wk) Term Units 3

A course stressing the importance of communications activities. Emphasis is given to improving the student's skills in writing, speaking, reading, and listening. The purposes and organization of many communications are emphasized. Attention is given to basic grammar, spelling and punctuation as well as to orderly thinking as an important factor in effective communication. Prerequisite: High school English or equivalent.

1.102 Communication Skills (5 Class Hrs/Wk) Term Units 3

Practice is provided the student in applying the basic communication skills, group discussions, individual speaking situations, written communications, and listening situations receive special emphasis. Attention is given to critical analysis and evaluation of information contained in the mass media. Specific methods of utilizing logical thinking in presentng and evaluating informative and controversial material is emphasized. Continued attention is given to grammar, spelling, and sentence and paragraph development. Prerequisite: Communication Skills 1.100 or equivalent.

1.221 Labor-Management Relations (3 Class Hrs/Wk) Term Units 3

This course traces the development of the unionism in the United States. Attention is given to the roles of labor and management in collective bargaining. A review of labor and management legislation is correlated with the development of unionism. Labor organization disagreement, arbitration, concilliation and problems of labor are also studied.

1.506 Applied Economics (3 Class Hrs/Wk) Term Units 3

Economics deals with the principles involved in the operation of the American economic system. The role of business and industry in the total economy is studied. Basic economic principles are applied to the relationship of employer and employee. Topics considered include historic trends, business organization, prices and competition, imperfect competition and monopoly, price levels, business cycles, taxation, labor unions, management associations, labor-management relations, labor legislation, and social and private security.

1.508 Economic Geography (3 Class, 1 Lab Hrs/Wk) Term Units 3

A study of the economic activities of the world with emphasis upon world activities in relation to United States activities. Geographic influences upon trade, manufacturing, agriculture, and mineral and power resources are covered. Attention is given to the interdependence of countries on economic activities.

1.510 Elements of American Government (3 Class Hrs/Wk) Term Units 3

A course devoted to the study of American government structure at the national, state, and local levels. An introduction to the principles and problems of government is included in this course.

1.600 American Institutions (3 Class Hrs/Wk) Term Units 3

A study of the effect of American social, economic, and poltical institutions, upon the individual as a citizen and as a worker in business and industry. The interrelationship of freedom and control is utilized as a common denominator in considering the fundamental prinicples and processes involved in the development of the basic institutions of our society. Topics considered are: culture, its functions and changes; social groups in relation to problems of urban living, personality formation, the family, and social classes; the American economic system, its concepts and organization; public opinion, the American political system, its constitutional foundations, judicial, executive, and legislative divisions; and international relations.

1.605 Health Education (2 Class Hrs/Wk) Term Units 2

This course is designed to provide individuals with select health and physical education activities through participation or study for the purpose of adding to their knowledge and appreciation of desirable mental and physical health practices as they relate to the individual and the community.

1.608 Psychology of Human Relations (3 Class Hrs/Wk) Term Units 3

A study of principles of psychology that will be of assistance in the understanding of inter-personal relations on the job. Motivation, feelings and emotions, and learning are considered with particular reference to the application to on-the-job problems. Other topics investigated are: intelligence and aptitude tests, employee selection, supervision, job satisfaction, and industrial conflict as they relate to the employee and his work situation. Attention is also given to personal and group dynamics so that the student may learn to apply the principles of mental hygiene to his adjustment problems as a worker and a member of the general community.

1.610 Public Speaking (1 Class, 2 Lab Hrs/Wk) Term Units 2

This course is intended to develop speaking skills with emphasis on the dual role of speech as both a speaking and listening skill, and on adjusting the approach to the specific audience. Practice is provded through individual speeches and group discussions with careful attention being given to effective organization and delivery. In addition to the general principles of speech, stress is placed on poise and confidence and on understanding their psychological basis.

1.620 The Physical World (3 Class, 1 Lab Hrs/Wk) Term Units 3

This course introduces the student to the physical world through an integrated study of everyday applications of physical science principles with emphasis on the basic principles of physics, astronomy, meteorology, geology, and chemistry, to provide an understanding of the scientific method and the role it has played in the intellectual history of mankind.

2.250 Business Mathematics (3 Class Hrs/Wk) Term Units 3

A concentrated course using programmed learning. A rapid rebuilding of fundamentals is accomplished. Problem solving through algebra procedures and equations for solving business and percentage problems is mastered. Prerequisite: High school math.

2.252 Business Mathematics II (3 Class Hrs/Wk) Term Units 3

By programmed learning, interest, discount, negotiable instruments and payroll mathematics are studied. Business mathematics in management decisions including cash and trade discounts, determining profit and loss, depreciation, taxes, securities, and insurance is covered. Prerequisite: Business Mathematics, 2.250.

2.258 Office Procedures (1 Class, 4 Lab Hrs/Wk) Term Units 3

This course is designed to familiarize the student with office jobs. Attention is given to work normally performed in an office such as postal and shipping, telephone, and telegrams and cables. Forms and supplies, office manuals, financial transactions, employer-employee relations, business customs, office systems and routine are discussed also. The student receives an introduction to data processing in this course.

2.259 Office Administration and Supervision (3 Class Hrs/Wk) Term Units 3

Principles of management as applied to office work. Emphasis on the role of the office in business management; office organization; physical facilities of the office; office services, procedures, standards, and controls; and record management.

2.260 Project Studies (2 Lab, 9 Independent Study Hrs/Wk) Term Units 4

The student is assigned a project appropriate to his occupational interests which he pursues to completion with the advice and direction of the instructor. Such projects furnish the student with an opportunity to prepare himself with specific information in a particular area just prior to seeking employment. Skills and knowledge developed during the student's college life find practical applications in the project study. Prerequisite: Consent of Instructor.

2.262 Cooperative Work Experience Term Units 4 to 8

A work experience program in school or in business establishments. Credit may granted for work experience under the following conditions: (1) approval of the work situation by the appropriate school authority; (2) completion of a variety of tasks; (3) development of production skills on assigned tasks; (4) satisfactory work reports of the employer and college supervisor. A minimum of 144 clock hours must be completed for each four units of credit granted. Prerequisite: School approval.

2.264 Advertising (2 Class, 2 Lab Hrs/Wk) Term Units 3

This course introduces the student to advertising and the role it plays in business. Planning advertising programs, advertising budgets, media, techniques of merchandising with advertising and types of advertising are covered. Layout and copywriting as applied to the newspaper and direct mail media are studied.

2.301 Credit Procedures (3 Class Hrs/Wk) Term Units 3

A study of the principles and methods of credit administration in the mercantile and retail field, including sources of information, credit policy, credit control, legal remedies, and collection techniques.

2.304 Fundamentals of Marketing (3 Class Hrs/Wk) Term Units 3

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, shipping and warehousing; standardization, grading, and pricing; government regulation of competition.

2.305 Principles of Retailing (3 Class Hrs/Wk) Term Units 3

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.

2.310 Small Business Operation (3 Class Hrs/Wk) Term Units 3

In this course the student is introduced to the small business in the American economy and advised of recent trends and operations in small business operation. The problems of establishing and operating a business are considered, with emphasis given to the field of retailing.

2.320 Business Law (3 Class Hrs/Wk) Term Units 3

A review of the nature of law as necessary. Emphasis is on contractual relationships, the law of sales, bailments, and negotiable instruments. Case studies are used to illustrate the principles involved.

2.321 Business Law (3 Class Hrs/Wk) Term Units 3

A review of the nature of law as necessary. Emphasis is on agency and employment, union labor contracts, personal property, real property, suretyship and guaranty.

2.322 Business Law (3 Class Hrs/Wk) Term Units 3

A review of the nature of law as necessary. Emphasis is on risk-bearing devices, partnerships and corporations, bankruptcy, and current social legislation. Prerequisite: One term of Business Law, 2.320 or 2.321 or equivalent.

2.326 Analysis of Financial Statements (3 Class Hrs/Wk) Term Units 3

In this course the student becomes familiar with financial and operating statements, auditing procedures, auditing reports and ratios commonly used in financial analysis. Special attention is given to Net Worth, Cash Flow, Capital Stock, Surplus, Ratio Analysis and Consolidated Statements.

2.327 Business Statistics (3 Class Hrs/Wk) Term Units 3

The statistical analysis of business and economic data used in controlling operations 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.

2.330 Fundamentals of Salesmanship (2 Class, 2 Lab Hrs/Wk) Term Units 3

An analysis and evaluation of the salesman of today and the role he plays in our economic life are made during this course. The principles and techniques of selling constitute the areas covered in this course. Detailed attention is given to both inside and outside selling activities.

2.331 Income Tax Procedures (3 Class Hrs/Wk) Term Units 3

A study of income tax law and the record-keeping necessary for income tax purposes.

2.501 Typing (1 Class, 4 Lab Hrs/Wk) Term Units 3

This is a beginning course in typing for those with no previous typing instruction. It covers the parts and construction of the more common makes of typewriters, learning of the keyboard, and the basic techniques of the touch system. The student should develop rhythm in his movements and attain an acceptable typing speed. Prerequisit: (See "Placement in Typing Class")

2.503 Typing (1 Class, 4 Lab Hrs/Wk) Term Units 3

This is a continuation of Typing I with emphasis on increasing the typing speed to an acceptable level. Preequisite: Typing 2.501 or equivalent. (See "Placement in Typing Class")

2.504 Business Communications (3 Class Hrs/Wk) Term Units 3

A study of business communications aimed at learning the purposes and functions of the many different types of communications utilized by the business world today. In addition to learning the purposes and functions, a primary objective of this course is learning to write effective business letters and the less complicated of the informal and formal reports.

2.505 Typing (1 Class, 4 Lab Hrs/Wk) Term Units 3

An intermediate course including corrective and acceleration drills to develop an acceptable typing speed. The student receives instruction in the various business papers encountered in the general office. Prerequisite: Typing 2.503 or equivalent. (See "Placement in Typing Class").

2.507 Typing (1 Class, 4 Lab Hrs/Wk) **Term Units 3**

An advanced course intended to increase the typing speed to an acceptable minimum while introducing the student to various types of specialized applications in industrial and professional fields such as legal, engineering, medical, sales and public relations communications, etc. Prerequisite: Typing, 2.505 or equivalent.

2.519 Office Machines (2 Class, 2 Lab Hrs/Wk) **Term Units 3**

The acquaintanceship level is learned on the following machines: 10-key and full-key adding listing; Friden, Monroe and Marchant rotary calculators; printing calculators; Burroughs and N.C.R. accounting machines; mimeo and stencil duplicators; IBM, Dictaphone, and Stenerette transcriing machines; IBM Selectric key-punch trainers; and stenograph machine shorthand. Prerequisite: Business Math for calculators; Typing proficiency for transcriing and IBM Key Punch operation.

2.521 Office Machines (2 Class, 2 Lab Hrs/Wk) **Term Units 3**

The proficiency of most, and mastery of some, of the same machines used in 2.519. Specialization will be encouraged in the area of special ability.

2.541 Shorthand (3 Class, 2 Lab Hrs/Wk) **Term Units 4**

An introduction to theory, reading and writinf outlines of abbreviated words, phrasing and contexual material. Course includes dictation and longhand transcription of familliar previewed material. Aims at dictation speed of 60 words a minute. Prerequisite: Satisfactory grade in high school English or pass qualifying English test. One semester of typing or concurrent enrollment in typing.

2.543 Shorthand (3 Class, 2 Lab Hrs/Wk) **Term Units 4**

This course is a continuation of 2.541; completion of theory and introduction to dictation and longhand transcription of unfamiliar material. Aims at speed of 80 to 100 words a minute. Prerequisite: Minimum grade of C in Shorthand 2.541.

2.545 Shorthand (3 Class, 2 Lab Hrs/Wk) **Term Units 4**

An advanced course in shorthand with an introduction to typewritten transcription, with emphasis on correct letter form, grammar, spelling, and punctuation. Aims at dictation sipeed of 100 to 120 words a minute. Prerequisite: Minimum grade of C in Shorthand 2.543.

2.547 Transcription (3 Class, 2 Lab Hrs/Wk) **Term Units 4**

This is an advanced course in transcription, with emphasis on comprehensive reading of notes in thought sequence and sustained transcription practice. Aims at coordinating skills and speed of typing, shorthand, and English essentials. Prerequisite: Minimum grade of C in Shorthand 2.545.

2.549 Advanced Dictation & Transcription (3 Class, 2 Lab Hrs/Wk) **Term Units 4**

Transcription from dictation notes with content consistent with executive situations; i.e., containing directions to e followed in completion of specific executive projects. Aims at student development of ability to handle judgment details appropriate to executive position. Prerequisite: Minimum grade of C in Shorthand 2.547.

2.755 Filing (2 Class Hrs/Wk) **Term Units 2**

This course covers the basic rules and procedures of filing. Individual practice filing equipment allows actual practice in arranging records according to alphabetic, geographic, numeric, and subject methods of filing.

2.766 Accounting (4 Class Hrs/Wk) **Term Units 4**

An introduction to accounting and the fundamental principles of accounting as applied to a sole proprietorship; the meaning and purpose of accounting; accounting statement; balance sheet and profit and loss statement; the theory of debits and credits; accounts and the trial balance; journals, ledgers, payroll; the complete accounting cycle.

2.767 Accounting (4 Class Hrs/Wk) **Term Units 4**

Partnerships, cash control, negotiable instruments, asset valuation, sales, taxes, adjusting and closing, use of worksheets. Prerequisite: Accounting 2.766.

2.768 Accounting (4 Class Hrs/Wk) **Term Units 4**

Corporation formation, equity accounting, bonds and investments, manufacturing, product cost, analysis of financial statement, budgeting and special sales situations. Prerequisite: Accounting 2.767.

2.769 Accounting (3 Class Hrs/Wk) **Term Units 3**

An advanced study of accounting records, merchandising and manufacturing accounts, end-of-year procedures, corrections of profits of prior periods, accounting statements, analysis of working capital, analytical and comparative per cent, analytical ratios. Prerequisite: Accounting 2.768 or equivalent.

2.771 Payroll Accounting (3 Class, 1 Lab Hrs/Wk) **Term Units 3**

Federal and State old age, unemployment, and disability insurance laws; state and local sales taxes. Accounting records which involve the numerous regulations of governmental bodies. Prerequisite: Accounting, 2.766 or approval of instructor.

2.772 Cost Accounting I (3 Class Hrs/Wk) **Term Units 3**

The relation of cost accounting to management for control; general principles involved in constructing a cost system; distribution of cost-materials, labor and burden; cost record; operating reports; joint and by-product cost and budgetary control. Prerequisite: Accounting 2.768 or equivalent.

2.773 Cost Accounting II (3 Class Hrs/Wk) **Term Units 3**

Process cost accounting; costing by-products and joint products; budgeting; estimated cost system; standard cost; cost control and analysis. Prerequisite: Cost Accounting 2.772.

2.774 Auditing (4 Class Hrs/Wk) **Term Units 4**

The preparation of the audit program, working papers, and reports are considered. In addition, selected programs dealing with various assets, liability, and capital accounts are worked and discussed. Prerequisite: Accounting 2.769 or equivalent.

2.783 Legal Transcription (2 Class, 2 Lab Hrs/Wk) **Term Units 3**

Transcription from dictation notes with content peculiar to the work of a legal secretary or court stenographer. Special work in preparation of briefs, court testimony, and legal documents of State of Oregon. Prerequisite: Typing 2.505 or equivalent.

2.784 Medical Dictation (3 Class, 2 Lab Hrs/Wk) **Term Units 4**

Advanced dictation involving medical terminology, phrasing and vocabulary. Special terms and definitions are used in preview of materials found in the dictation for transcription. Emphasis on meaning, spelling, and shorthand writing of medical prefixes and suffixes. Prerequisite: 2.549 Advanced Dictation and Transcription or consent of instructor.

2.785 Medical Transcription (1 Class, 4 Lab Hrs/Wk) **Term Units 3**

Conducted on the laoratory asis, the student transcribes from dictated notes, using terminology from general medicine, and specialized related areas. Attention is given to the preparation of medical case histories, X-ray reports, post-operative diagnosis, etc. Prerequisite: Same as for Medical Dictation (2.549).

2.786 Legal Dictation (3 Class, 2 Lab Hrs/Wk) **Term Units 2**

Special dictation, involving special legal terms, vocabulary building, shortcuts in writing legal terms in Gregg shorthand, or in machine shorthand. Special forms involving phrasing, advanced brief forms, and technical terms needed in legal secretarila work. Prerequisite: 2.549, Advanced Dictation and Transcription, or consent of instructor.

3.300 Automotive Chassis (2 Class Hrs/Wk) **Term Units 2**

This course is designed to give students an understanding of the principles of operation of automotive chassis components. Fundamentals of front suspension and steering geometry, diagnosis of steering and suspension troubles, and overhaul techniques of steering and suspension systems are studied. Prerequisite: Practical Physics 4.300 should be taken concurrently.

3.301 Automotive Chassis Laboratory (3 Lab Hrs/Wk) **Term Unit 1**

A course to develop the ability to use basic hand tools, measuring tools, and shop equipment in the process of overhauling and adjusting various types of suspension and steering systems. It is the practical application of the theory studied in Automotive Chassis 3.300. Prerequisite: Automotive Chassis 3.300 should be taker. concurrently.

3.302 Automotive Chassis (2 Class Hrs/Wk) **Term Units 2**

The purpose of this course is to familiarize students with the functions and principles of operation used on all major types of automotive brake systems. The student should acquire knowledge of brake trouble shooting, procedures for overhauling both conventional and power brakes, and service techniques. Prerequisite: Automotive Chassis 3.300 and 3.534 or equivalent. Practical Physics 4.302 should be taken concurrently.

3.303 Automotive Chassis Laboratory (3 Lab Hrs/Wk) Term Unit 1

This is the practical application of the theory studied in Automotive Chassis 3.302. Prerequisite: Automotive Chassis 3.302 should be taken concurrently.

3.304 Internal Combustion Engines (2 Class Hrs/Wk) Term Units 2

This course is designed to give the student an understanding of the principles of operation of various types of internal combustion engines. Students should acquire a knowledge of the construction and operation of the automotive engine, all components, and accessories. Prerequisites: Practical Physics 4.300 and Mathematics 4.202 should be taken concurrently.

3.305 Internal Combustion Engines Lab. (3 Lab Hrs/Wk) Term Unit 1

This is the practical application of Internal Combustion Engines 3.304, consisting of basic service and overhaul techniques commonly used on automotive engines. Removal and replacement of all engine and accessory components, with a detailed study of the function of each part, is supervised by the instructor. Prerequisites: Practical Physics 4.300, Mathematics 4.202, and Internal Combustion Engines 3.304 should be taken concurrently.

3.306 Internal Combustion Engines (2 Class Hrs/Wk) Term Units 2

This course is intended to provide the student with knowledge of overhaul methods, trouble shooting, general engine performance and testing, and service techniques covering valve, cylinder, and bearing systems. Prerequisites: Internal Combustion Engines 3.304 and 3.305. Practical Physics 4.302 should be taken concurrently.

3.307 Internal Combustion Engines Lab. (6 Lab Hrs/Wk) Term Units 2

A shop course designed to provide experience in practical engine reconditioning. Diagnosis of troubles directly related to the engine and its performance is practiced with the use of test instruments. A companion course for Internal Combustion Engines 3.306. Prerequisites: Practical Physics 4.300, Internal Combustion Engines 3.306. Practical Physics 4.302 should be taken concurrently.

3.308 Automotive Electricity (3 Class Hrs/Wk) Term Units 3

This course is designed to provide the student with an understanding of the fundamental principles of electricity as used by the auto mechanic. Construction and function of automotive electrical components, including storage batteries, switches, ignition, and cranking systems are studied in detail with the aid of demonstrations, cutaway, and mock-up equipment. Prerequisite: Practical Physics 4.304 should be taken concurrently.

3.309 Automotive Electricity Lab. (3 Lab Hrs/Wk) Term Unit 1

This is the practical application of the theory studied in Automotive Electricity 3.308. Prerequisites: Practical Physics 4.304 and Automotive Electricity 3.308 must be taken concurrently.

3.310 Fuel Systems and Carburetion (2 Class Hrs/Wk) Term Units 2

A course designed to give the students an understanding of the fundamental principles of carburetion, an overview of principles of engine fuel systems and fuels, operation and function of all types of fuel systems, and an understanding of the simple automotive carburetor. The student should acquire a basic knowledge of carburetor circuits. Prerequisites: Internal Combustion Engines 3.306 and 3.307, Practical Physics 4.302 should be taken concurrently.

3.311 Fuel Systems and Carburetion Lab. (3 Lab Hrs/Wk) Term Unit 1

This course is designed to enable the student to develop skill and understanding in overhaul of all types of simple automotive fuel systems and carburetors, analyzing the function of each component and circuit. Diesel and LPG fuel systems are disassembled by the student for study of construction and function of components and reassembled. Prerequisites: Internal Combustion Engines 3.304; Fuel Systems and Carburetion 3.310 should be taken concurrently.

3.312 Fuel Systems and Carburetion (2 Class Hrs/Wk) Term Units 2

An advanced course in techniques and procedures for overhaul and service of carburetors and carburetion accessories, including all types of single and multiple throat models. Principles of operation and special carburetion equipment, such as supercharger and automotive fuel injection, are studied. Diagnosis and testing procedures involving carburetion systems are covered. Prerequisites: Fuel Systems and Carburetion 3.310 and 3.311.

3.313 Fuel Systems and Carburetion Lab. (3 Lab Hrs/Wk) Term Unit 1

Developing skills in service and overhaul of all types of single and multiple throat carburetion systems. Detailed servicing procedures on various types of carburetor circuits, using laboratory equipment. Basic trouble-shooting procedures are practiced on operating engine components. Prerequisites: Fuel Systems and Carburetion 3.310 and 3.311. Fuel Systems and Carburetion 3.312 should be taken concurrently.

3.314 Power Steering (1 Class, 3 Lab Hrs/Wk) Term Units 2

This is a course in practical power steering work covering trouble shooting, dismantleing, inspection of parts, reassembly, and adjustments to cover principal repair procedure on those power steering units common to the automotive trade. Principles of operation will be studied in the classroom and applied directly to power steering units in the laboratory. Prerequisite: Second year standing or instructor's approval and Fluid Mechanics and Fuels 3.545.

3.316 Power Trains (2 Class Hrs/Wk) Term Units 2

This is a course covering all components of the power train, including clutch, standard and overdrive type transmissions, drive line, and final drive. These components will be studied in detail in the classroom, using lecture and visual aids, to determine the function and operation of each unit to form a basis for subsequent overhaul procedures. Prerequisite: Automotive Chassis 3.302 and 3.535 or equivalent.

3.317 Power Trains Laboratory (6 Lab Hrs/Wk) Term Units 2

This course is designed for building skill and utilizing practical work covering overhaul and trouble shooting all units of the automotive power train. All work is performed on laboratory units in conjunction with concurrent attendance in the Power Trains Course. Prerequisite: Power Trains 3.316 should be taken concurrently.

3.318 Front End Alignment (2 Class Hrs/Wk) Term Units 2

This course provides a detailed study of wheel alignment. Wheel alignment factors, equipment, and procedures are covered in detail. Wheel balance methods and machines are studied, as well as alignment troubles. Prerequisite: Automotive Chassis 3.300 and 3.534.

3.319 Front End Alignment Laboratory (3 Lab Hrs/Wk) Term Unit 1

This is a practical application of the theories studied in Front End Alignment. The student should become skilled in the manipulations of different styles of alignment equipment, as well as familiar with the front end systems of various makes of automobiles. Prerequisites: Automotive Chassis 3.300 and 3.534 or equivalent. Front End Alignment 3.318 must be taken concurrently.

3.322 Automotive Electricity (3 Class Hrs/Wk) Term Units 3

This course is a continuation of Automotive Electricity 3.308 covering automotive lighting, charging, and indicating systems. Students will acquire the ability to diagnose minor troubles in these systems as well as be able to interpret and trace automotive wiring diagrams. Common types of minor electrical accessories are studied. Prerequisite: Automotive Electricity 3.308 and 3.309 or equivalent.

3.323 Automotive Electricity Laboratory (3 Lab Hrs/Wk) Term Unit 1

This is a practical application of the theory studied in Automotive Electricity 3.322. Prerequisite: Automotive Electricity 3.322 to be taken concurrently.

3.324 Tune-Up and Diagnosis (2 Class Hrs/Wk) Term Units 2

This course is designed to give students the ability to recognize and diagnose malfunctions in the automotive engine and its accessory systems. Advanced methods of testing electrical and carburetion systems are studied. The students should develop the ability to analyze the operation of all engine accessories directly to engine performance. Prerequisites: Second year standing and Automotive Electricity 3.322 and 3.323.

3.325 Tune-Up and Diagnosis Laboratory (6 Lab Hrs/Wk) Term Units 2

This course is a practical application of the theory studied in the Tune-Up and Diagnosis course. Live automotive or laboratory equipment will be used by students in diagnosing and correcting troubles. Various types of tune-up equipment are used, enabling the students to develop skill in their use. Prerequisites: Second year standing. Tune-Up and Diagnosis 3.324 should be taken concurrently.

3.326 Automatic Transmission (3 Class Hrs/Wk) Term Units 3

This course covers automatic transmission work, including principles of operation, trouble shooting and overhaul procedures on hydraulically operated transmissions, torque converters, and fluid couplings used with automatic transmissions common to the automotive field. Prerequisites: Fluid Mechanics and Fuels 3.545 and Power Trains 3.316 and 3.317 or equivalent.

3.327 Automatic Tranmissions Laboratory (4 Lab Hrs/Wk) Term Unit 1

This course is a practical application of the theory studied in Automatic Transmissions 3.326, using the various types of automatic transmissions found in automotive equipment. Prerequisite: Automatic Transmissions 3.326 must be taker concurrently.

3.329 Mechanical Systems Laboratory (9 Lab Hrs/Wk) Term Units 3

This is a shop course in which the students can develop additional abilities and understanding through diagnosis and repair of operating automotive equipment. Conditions and practices similar to automotive repair shops in industry. It will include overhaul and maintenance procedures and practices on suspension systems, brakes, power trains, and engines. Students will develop skills in analyzing typical problems, outlining job procedures, conservation of working time, and following up with actual overhaul of the defective units. Prerequisites: Second year standing or instructor's approval. Automotive Electricity 3.322 and 3.323 to be taken concurrently.

3.331 Mechanical Systems Laboratory (9 Lab Hrs/Wk) Term Units 3

This course is a continuation of Mechanical Methods Lab 3.329 in further developing the students' abilities and knowledges. Skills developed in previous courses will be improved, with emphasis on automotive electricity and automatic transmission units. Diagnosis, testng, and overhauling of units will be practiced under industrial conditions. Prerequisites: Mechanical Methods Lab 3.329 or equivalent. Automatic Transmissions 3.326 and 3.327.

3.332 Automotive Service Management (2 Class Hrs/Wk) Term Units 2

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 building facilities. Appreciation of good relationship with customers, labor and management groups, and individuals is emphasized. Prerequisite: Second year standing or equivalent.

3.333 Mechanical Systems Laboratory (9 Lab Hrs/Wk) Term Units 3

This course is a continuation of Mechanical Methods Lab 3.331 to further develop the students' abilities in diagnosis and repair of automotive units with emphasis on power steering and tune-up procedures.Power accessories are serviced as time and availability permit. Prerequisite: Mechanical Methods Lab 3.331 or equivalent.

3.338 Automotive Repair Estimating (2 Class Hrs/Wk) Term Units 2

This course is designed to give the student an understanding of proper diagnosing and estimating of labor and material costs involved in the repair and service of automotive equipment. Emphasis will be on the use of typical manuals and price lists used in the industry. The students will make practical application of the theories studied in this course on units to be repaired in the shop. Prerequisite: Second year standing or equivalent.

3.545 Fluid Mechanics and Fuels (2 Class Hrs/Wk) Term Units 2

A study of the practical uses of hydraulic power transmission and application. The fundamental principles are reviewed and the uses of hydraulic pressure and fluid flow in brakes, pumps, power steering units, fluid couplings, torque converters, and power accessories are covered thoroughly. A study of petroleum products as used in fuels and lubricants is also included. Prerequisite: Practical Physics 4.300 and 4.302.

3.800 Diesel Engines (2 Class Hrs/Wk) Term Units 2

This is a beginning course specifically related to diesel engines and is designed to give the student an understanding of the types and construction of these engines with emphasis on the fundamentals, and includes a study of cooling and lubrication systems. Prerequisite: Second year standing in Automotive Mechanical Curriculum or equivalent.

3.801 Diesel Engines Laboratory (6 Lab Hrs/Wk) Term Units 2

Practical application of the principles and information studied in Diesel Engines 3.800 is centered around laboratory or shop-type work consisting of the removing, replacing, inspecting, and adjusting of the various accessories and components studied. Prerequisite: Diesel Engines 3.800 or equivalent.

4.100 Introduction to Fabrication Prac. (1 Class, 6 Lab Hrs/Wk)

Term Units 3

An introductory course of observation and drafting. Students will be assigned drawing projects and will normally view the physical object of the drawing in order to develop their visualization of the subject on the drafting board. Frequent field trips should be made to observe modern methods of manufacturing, casting, forging, construction, and assembly at local industry. Emphasis will be placed on materials, methods of fabrication, glossary, scaling for drawing, and visualization of fabricated objects or assemblies. Prerequisite: Drafting 4.101 may be taken concurrently.

4.101 Drafting (4 Lab Hrs/Wk) **Term Units 2**

This is a fundamental course in drafting designed to give the student a basic understanding of drawing techniques. Emphasis will be placed on the application of drafting instruments, standard orthographic projection, layout procedures, and ASA approved lettering techniques. Drawing techniques such as geometric construction, selection of views, sectional and auxiliary views, revolutions, threads, and standard dimensioning practices will be covered. Prerequisite: High school algebra or approval of department head. Mathematics 4.202 may be taken concurrently.

4.103 Electrical Drafting (4 Lab Hrs/Wk) **Term Units 2**

This course covers the techniques required for the electrical and electronic fields. It includes charts, graphs, chassis layout, schematic and pictorial wiring diagrams, routing diagrams (power distribution, lighting, conduit and ducts, underground wiring and ducts), and location drawings. Standard Schematics such as motor starters, annunciators, AM receivers, and other typical industrial circuits will be covered. ASA and EEIA approved symbols will be used. Prerequisites: Drafting 4.101 or equivalent.

4.105 Drafting (4 Lab Hrs/Wk) **Term Units 2**

This is an intermediate course designed to prepare students to enter mechanical, structural, civil, and architectural drafting. It includes isometric projection, perspective drawings. Emphasis is placed on the concept, technique of inking, and the development of working drawings as used in industry. Limitations of general shop equipment are discussed. Prerequisite: Drafting 4.101 or equivalent.

4.109 Mechanical Drafting (4 Lab Hrs/Wk) **Term Units 2**

An advanced course emphasizing mechanical design. It includes sketching, cam and gear layout, isometric drawings, welding drawings, tolerances and allowances, and tool jig drawings. Simplified drawing techniques will be covered and general shop procedures will be discussed. Emphasis will be placed on the industrial requirements of drawings. Prerequisite: Third term standing or approval of department head.

4.119 Project Drafting (9 Lab Hrs/Wk) **Term Units 3**

This course emphasizes working conditions of the industrial drafting room. Students will be assigned projects that will include one or more drawings requiring all of the skills previously acquired. Instruction will include the methods for detail layout, reading specifications, common materials of fabrication, checking and back-checking drawings, and material take-offs. Discussion will cover the administration of the drafting room, issuing drawings, and revisions. Speed and accuracy will considered of paramount importance. Prerequisite: Drafting 4.105 which may be taken concurrently.

4.121 Project Drafting (8 Lab Hrs/Wk) **Term Units 3**

A continuation of the emphasis on industrial working conditions. Students will be assigned projects (requiring use of all previously learned skills and principles) that will familiarize them with many of the specialized fields of drafting. Instruction will include the basic methods for layout and detailing assemblies and subassemblies, reading specifications, common materials of fabrication, checking and back-checking drawings, and materials take-offs. Drafting room standards of various local industries will be discussed. Speed and accuracy will be considered of paramount importance. Prerequisite: Project Drafting 4.119 or equivalent.

4.150 Welding (1 Class, 3 Lab Hrs/Wk) **Term Units 2**

4.151 Welding (1 Class, 3 Lab Hrs/Wk) **Term Units 2**

Setup and operation of oxy-acetylene and electric arc welding 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. Technical information is correlated with actual practice to provide the student with an understanding of the composition of the various metals and methods of fabrication used in construction, maintenance, and repair industries. This is one course; two consecutive terms.

4.200 Mathematics

This is a course in basic mathematics intended as a review of arithmetic. It includes arithmetical operations: addition, subtraction, multiplication, and division; fractions, decimal fractions, percentage, ratio, and proportion; tables and graphs; geometric measuration; measurement; and weights and measures.

4.202 Mathematics (3 Class, 2 Lab Hrs/Wk) **Term Units 4**

This is a course in practical mathematics including the fundamentals of applied algebra and applied geometry, including symbols, equations, ratio and proporation, exponents, radicals, formulas, geometric lines and shapes, common geometric constructions, and introductory applied trigonometry. Prerequisite: Mathematics, general high school, or equivalent.

4.204 Mathematics (3 Class, 2 Lab Hrs/Wk) **Term Units 4**

This course concentrates on problems encountered by workers in industrial occupations. It applies arithmetic, algebra, geometry, trigonometry, and their various phases to jobs encountered. Emphasis on actual problem solving aspects. Prerequisites: Mathematics 4.202 or equivalent.

4.300 Practical Physics (3 Class, 2 Lab Hrs/Wk) **Term Units 4**

This is an introductory course in practical physics covering matter, measurements, mechanics, and machines. Laboratory time is provided for demonstrations and experiments to help clarify the principles and procedures covered in class. Prerequisite: Mathematics 4.202 should be taken concurrently.

4.302 Practical Physics (3 Class, 2 Lab Hrs/Wk) **Term Units 4**

This is an introductory course in practical physics covering heat, light, and sound. Laboratory time is provided for demonstrations and experiments to help clarify the principles and procedures covered in class. Prerequisite: Mathematics 4.202 or equivalent.

4.304 Practical Physics (3 Class, 2 Lab Hrs/Wk) **Term Units 4**

This is an introductory course in practical physics covering magnetism and electricity. Laboratory time is provided for demonstrations and experiments to help clarify the principles and procedures covered in class. Prerequisite: Mathematics 4.202 or equivalent.

4.400 Surveying

A eginning course in surveying techniques designed to give the student an understanding of the fundamentals of chaining, leveling and transit work, care and adjustment of surveying instruments, and office procedures. Provision is made by appropriate field work for practical application of the techniques learned.

4.401 Surveying

This is a fundamental course which is a continuation of Surveying 4.400. It is designed to familiarize students with stadit, topographic, planetable, and boundary surveys. Meridian determination and uses of aerial photogrammetry are considered.

4.402 Surveying

This course is a continuation of Surveying 4.401. It is designed to familiarize the student with route, mine, and hydrographic surveying. The techniques are applied to subdivisions and boundary surveys. Principles of Geodesy are introduced.

4.410 Mapping

Some of the areas coverde in this course are: advanced map plotting; legal description; subdivision planning; and simulated problems of construction. Advanced earth work, geodetic computation, computing machines, and professional practices are also covered. Prerequisite: Surveying 4.401, with Surveying 4.402 to be taken concurrently.

5.501 Professional & Vocational Relationships **Class Hrs. 78**

This course consists of studies to aid the student to understand herself and her relationship with other people, especially patients and fellow workers. It presents the picture of her personal health in relationship to herself and the health of the community. This section also touches on nursing, past, present and future and its legal aspects. Prerequisite: Registration in the Practical Nurse program.

5.502 Nursing Care in Conditions of Illness **Class Hrs. 129**

This course consists of studies of the causes, symptoms and treatment of disease conditions of the human ody's system. It includes the principles of nursing care of mothers, infants and children, medical and surgical conditions and mental illness. It also covers study of rehabilitation and of the prevention and control of disease. Prerequisite: Registration in the Practical Nurse program.

5.503 Normal Health, Growth & Development **Class Hrs. 128**

This course consists of studies of anatomp and physiology, the nutritional needs of the healthy body with meal planning, and the orgwth and development of the human being from gestation through childhood, adulthood and into the aging process. This study covers physical, mental and emotional aspects. Prerequisite: Registration in the Practical Nurse program.

5.504 Nursing Skills **Class Hrs. 181**

This course consists of studies, and practice and demonstration, of the principles and methods used in the physical care of the sick. Prerequisite: Registration in the Practical Nurse program.

5.525 Clinical Practice **Approximately 1232 Hours**

This consists of the actual nursing care in the hospital. It is divided into the following major items:

Hospital Organization & Nursing Procedure	80 Hours
Surgical Nursing	256 Hours
Medical Nursing	256 Hours
Obstetrical Nursing (Including New Born)	256 Hours
Pediatric Nursing	128 Hours
Geriatrics & Long Term Illness	128 Hours
Recovery Room	64 Hours
Central Supply	64 Hours

6.101 Plane Surveying (1 Class, 4 Lab Hrs/Wk) **Term Units 3**

A beginning course in surveying techniques designed to give the student an understanding of the fundamentals of chaining and leveling, care and adjustment of surveying instruments and office procedures. Provision is made by appropriate field work for practical application of the techniques learned. Prerequisite: Mathematics 4.202 or equivalent.

6.103 Plane Surveying (1 Class, 4 Lab Hrs/Wk) **Term Units 3**

A continuation of Plane Surveying 6.101 desinged to familiarize students completely with the engineer's transit. Uses of the transit are considered and practical problems put the theo y into practice. Prerequisites: Technical Mathematics 6.261 and Plane Surveying 6.101 or equivalent. Technical Mathematics 6.262 may be taken concurrently.

6.107 Strength of Materials (2 Class, 3 Lab Hrs/Wk) **Term Units 3**

A study of the stresses and strains that occur in bodies when subjected to tensile, compressive and shearing forces, including the common theory of beams. The distribution and magnitude of stresses are examined in welded and riveted joints, thin wall cylinders, torsional members and beams. Practice problems emphasize the materials studied. The laboratory phase of this course covers: Testing of principal construction materials; the major testing machines and their calibration. Applied Mechanics 6.266 and Technical Mathematics 6.109 should be taken concurrently.

6.108 Materials of Construction (2 Class Hrs/Wk) **Term Units 2**

Comparisons of various materials, their source, method of manufacture, physical and chemical properties; grading under a variety of conditions; soil and terrain as encountered in construction work.

6.109 Applied Mechanics (2 Class, 3 Lab Hrs/Wk) **Term Units 3**

The course consists of a study of energy at rest (equilibrium). This includes resolution of forces, equilibrants of forces in one plane, simple machines, and equilibrants of nonconcurrent forces. Time is provided for demonstrations and experiments to help clarify the principles and procedures covered. Prerequisite: Technical Mathematics 6.262 and Applied Physics 6.371 or equivalent.

6.115 Electrical Mathematics (3 Class, 2 Lab Hrs/Wk) **Term Units 4**

An applied course in mathematics for electronic engineering technicians. Includes an introduction to calculus, covers graphical methods, differentiation, and integrates with direct application to electronic and electrical circuits. Prerequisites: Technical Mathematics 6.266 or equivalent.

6.126 Technical Report Writing (3 Class Hrs/Wk) **Term Units 3**

This is a course which 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. Prerequisite: Communication Skills 1.100 or equivalent.

6.127 Practical Descriptive Geometry (4 Lab Hrs/Wk) **Term Units 2**

This course gives a brief view of advanced drafting problems and takes the student further into the field of descriptive geometry principles. In the production of detailed drawing from assembly drawing the principles of Descriptive Geometry are necessary to the skilled draftsman. Prerequisites: Third term standing or approval of department head.

6.135 Engineering Problems (2 Lab Hrs/Wk) **Term Unit 1**

This course of study in engineering problems is one in which the student is instructed in the development of accurate, effective, and efficient work and study habits. The course is intended to train the student to organize his analysis and record them in clear, concise form so that they can be interpreted. Prerequisites: One year of high school algebra or equivalent.

6.136 Engineering Problems (2 Lab Hrs/Wk) Term Unit 1

This course aims to develop the skill of gathering together and sorting research results and problems solving records into logical summation. Mathematical and graphical analysis of data will be emphasized in the presentation of information in the report. Prerequisite: Engineering Problems 6.135.

6.200 Electrical Theory (DC) (3 Class, 2 Lab Hrs/Wk) Term Units 4

Presents an introduction to electronics on the basis of direct currents with an emphasis on contemporary techniques as a supplement to basic concepts. Covers the principles of electron physics, unidirectional current and factors affecting its magnitude, series-circuit analysis, parallel-circuit analysis, series-parallel circuit analysis, complex unidirectional-current circuits, the phenomena of magnetism and electro-magnetism, inductance and its characteristics of capacitance, and electrical measurement instruments. Prerequisites: High school algebra or equivalent.

6.202 Electrical Theory (AC) (3 Class, 2 Lab Hrs/Wk) Term Units 4

A continuation of electrical theory on the basis of alternating currents with an emphasis on contemporary techniques as a supplement to basic concepts. Covers the analysis of the sine wave, series circuits with a sine wave input, series resonance, parallel circuits with a sine wave input, parallel resonance, the non-resonant and the resonant transformer and attenuators and pads. Prerequisites: Second term standing or approval of the department head.

6.204 Electrical Circuits (3 Class Hrs/Wk) Term Units 3

A continuation of electrical theory with an emphasis on the analysis of the characteristics of complex waveform circuits. Covers passive filter networks, bi-directional waveforms, complex waveform analysis of series R-C circuits, waveform analysis of series R-L circuits, and waveform analysis of combined networks. Prerequisite: Third term standing or approval of department head.

6.205 Electrical Circuits Lab (6 Lab Hrs/Wk) Term Units 2

Practical application of the theory studed in Electrical Circuits. Involves the construction and testing of passive filter networks including the constant k, the series m-derived, and the shunt m-derived types. Response of simple circuits involving diodes, resistance, inductance, and capacitance to square-wave, triangular-wave, saw-tooth-wave, and rectangular-wave pulses is analyzed. Various R-L-C combinations are designed and tested for low and high-frequency response, rise and fall times are measured, and integrator and differentiator circuits are constructed and analyzed. Prerequisites: Third term standing or approval of department head.

6.210 Vacuum Tube & Transistor Analysis (3 Class Hrs/Wk) Term Units 3

An introductory course to the anlysis of the electrical characteristics of vacuum tubes and transistors. Includes a review of electron physics with emphasis on electron devices including hot and cold-cathode vacuum and gas diodes and semiconductor diodes; three-element vacuum tubes and transistors; multi-grid tubes including tetrodes, pentodes, and beam-power tubes; special transistors and diodes. Includes a review of auxiliary electronic components including potentiometers, transformers, and relays, and a review of several electronic circuits involving series and parallel resonance, bandwidth, and coupled-circuit theory. Also covers elementary filter design, harmonic analysis, network theorems, and four-terminal networks. Prerequisites: Third term standing or approval of department head.

6.211 Vacuum Tube & Transistor Analysis Lab. (3 Lab Hrs/Wk) Term Unit 1

Practical application of the theory studied in Vacuum Tubes and Transistor Analysis. Involves the disassembling of diodes, triodes, tetrodes, pentodes, and multigrid tubes, and transistors to observe their construction. Also includes the plotting of the electrical characteristic curves of vacuum tubes and transistors. The plotted curves are used to determine the transconductance, the amplification factor, and the plate-resistance of vacuum tubes and the current-gain of junction transistors in various circuit configurations. The operation of the Thyratron is tested with A-C and D-C plate voltages, using a phase-shifter for grid-control. Includes the testing of Zener and double-based diodes and special transistors such as the PNPN. Transformer-coupled theory is verified by testing out under-coupled, optimum-coupled, and over-coupled coils. Gain of amplifiers is computed in decibels and auxiliary audio elements such as microphones, speakers, and tape-recorders are reviewed. Prerequisites: Third term standing or approval of department head.

6.212 Oscillator Circuits and Design (2 Class Hrs/Wk) Term Units 2

A continuation of vacuum tube and transistor analysis. Involves the study of single-phase rectifier circuits and filters with caluculation of the ripple-factor. Introduces the fundamental feedback equation and covers positive and negative feedback. Various types of feedback oscillators including the Hartley and Colpitts are analyzed. Covers negative-resistance oscillators, miscellaneous sine-wave oscillators, non-sinusodial oscillators including various multivibrator circuits. The principles of AM and FM modulation and detection are studied and the theory and application of the cathode-ray oscilloscope is included. Prerequisites: Fourth term standing or approval of department head.

6.213 Oscillator Circuits and Design Lab. (6 Lab Hrs/Wk) Term Units 2

Practical application of the theory studied in Oscillator Circuits and Design. Involves the testing of half-wave and full-wave single-phase rectifier circuits and measurement of the D-C output and ripple-voltage. Includes the construction and testing of Hartley, Colpitts, Armstrong, electon-coupled, crystal, tri-tet, phase-shift, Wein-bridge, and other types of feedback and negative-resistance oscillators. Grid, cathode, screen and plate AM modulation are tested and checked for percentage by means of an oscilloscope. The reactance-tube modulator is constructed and tested for FM modulation. The cathode-ray oscilloscope circuits are analyzed. Frequency-comparisons are made with Lissajous' patterns and Z-axis modulation. Applications and proper techniques for use of the oscilloscope are also included. Prerequisites: Fourth term standing or approval of department head.

6.214 Amplifier Circuits and Design (3 Class Hrs/Wk) Term Units 3

A continuation of oscillator circuits and design. Covers the application of vacuum tubes and transistors in amplifier circuits. Analyzes the vacuum tube amplifier into its basic and equivalent circuit. Includes load-lines, distortion, and pentode and beam-power tube consideration. Analyzes transistor amplifiers in various circuit configurations and covers biasing methods. Also includes transformer analysis, transformer-coupled amplifiers, and R-C coupled amplifiers. Special amplifiers using vacuum tubes and transistors are studied Includes push-pull circuit analysis and phase inversion; Class-C amplifier analysis, and high-frequency amplifiers. Prerequisite: Fifth term standing or approval of department head.

6.215 Amplifier Circuits and Design Lab. (6 Lab Hrs/Wk) Term Units 2

The application of theory studied in Amplifier Circuits and Design. Involves the design, construction, and testing of various types of vacuum type and transistor amplifiers employing direct, transformer, and R-C coupling. Several push-pull circuits utilizing different types of phase inverters are built and tested and the principle of complementary symmetry is demonstrated in the operation of transistors in push-pull. Class-C power amplifiers are constructed and adjusted for proper operation and different types of high-frequency amplifiers are also built and tested. Prerequisites: Fifth term standing or approval of department head.

6.216 Advanced Electronic Circuits (2 Class, 3 Lab Hrs/Wk) Term Units 3

A course designed to simulate problems in industry. Covers six electronic areas including computors, communications, industrial controls, electronics, microwaves, and radar. Class meetings involve overview of each area and study of current problems and opportunities. Lab involves construction, testing, and reporting performances of assigned circuits. Prerequisites: Sixth term standing or approval of department head.

6.218 Industrial Electronics (2 Class, 3 Lab Hrs/Wk) Term Units 3

An introductory class and laboratory course covering the principles and applications of electronics in industry. Involves a review of the principles of D-C motors and generators, and covers D-C motor controls with emphasis on electronic controls. Also covers relays and time-delay circuits; industrial photo-electric control and typical applications; electronic power-control with saturable-core reactors and the amplidyne; and the electronic control of welding. Prerequisites: Fifth term standing or approval of department head.

6.228 Industrial Television (2 Class, 3 Lab Hrs/Wk) Term Units 3

A theory and lab course designed to cover television systems, scanning and synchronization, composite video signal, frequency-modulation, television receivers and monitors, picture tubes, power supplies, video amplification, practical design of video amplifiers, brightness-control and d-c reinsertion video dection, automatic gain-control and sync-separation, and deflection oscillator and amplifier circuits. Prerequisites: Fifth term standing or approval of department head.

6.234 Wave Generator and Shaping (2 Class, 3 Lab Hrs/Wk) Term Units 3

A class and laboratory course designed as an introduction to pulse techniques. Begins with an introduction to pulses, giving their historical development, typical applications, nomenclature, importance of pulse shapes, and responses of frequency-selective circuits to pulses. Includes the theory and operation of limiter and clipper circuits, differentiating and integrating circuits, and D-C restoration. Various multivibrator circuits, synchronization circuits, and applications of multivibrators are studied. Also covers blocking oscillators of several types, their principles of operation, and application. Prerequisites: Fourth term standing or approval of department head.

6.235 Industrial Television (1 Class, 2 Lab Hrs/Wk) Term Unit 1

A theory and laboratory course covering closed-circuit television systems, picture transmission, scanning process and the composite signal, camera tubes and circuits, camera video amplifier systems, camera sync and deflection generators, and several types of commercial industrial cameras with emphasis on circuit anlysis, set-up procedure, operation and adjustment. Prerequisites: Sixth term standing or approval of department head.

6.236 Servo Systems (1 Class, 3 Lab Hrs/Wk) Term Units 2

Presents the principles of servo and data transmission systems with emphasis on fundamentals. Covers control systems and servo-mechanisms, elementary forms of control systems, servo systems, synchros, servo element, electronic and magnetic amplifier, direct current servomotors, performance improvers, methods for servos and measurement, and examples of servos and servo systems. Prerequisites: Fourth term standing or approval of department head.

6.240 Electronic Data Processing (3 Class Hrs/Wk) Term Units 3

An introduction to the principles of electronic digital computers. Covers the application and programming of computers in business, industrial, and scientific organizations. Reviews the decimal and binary numbering systems as they relate to computers; analyzes computer circuitry with emphasis on transistor and diode switching circuits; presents the fundamentals of logical design with an introduction to Boolean Algebra and the use of block diagrams; analyzes the major divisions of a digital computer in terms of the arithmetic element, the memory element, input and output devises, and the control element. Prerequisites: Fifth term standing or approval of department head.

6.242 Microwaves (2 Class, 3 Lab Hrs/Wk) Term Units 3

A theory and laboratory course designed as an introduction to microwaves. Begins with the study of ultra-high frequencies to develop a good foundation for the development of waveguides and microwave circuitry. Covers UHF transmission lines, the application of quarter-wave lines, matching stubs, and standing-wave measurements. Transmission of microwave energy through waveguides is analyzed and the TE and TM modes of transmission are studied. Various types of waveguide plumbing including choke joints, directional couplers, flap-attenuators, horns, guide partitions, and flexible waveguides are studied. Includes also cavity resonators, high-frequency oscillators, magnetron and klystron oscillators, the resnatron, traveling wave tubes, and other high-frequency tubes and devices. Various types of UHF and microwave antennas and receiver circuitry are included. Microwave measurements involve the use of thermocouple voltmeters, bolometers, cavity wavemeters, slotted lines, and directional couplers. Prerequisites: Sixth term standing or approval of department head.

6.244 Automation Systems (3 Class Hrs/Wk) Term Units 3

This course is devoted to the study of the techniques of automation. Introduces the basic concepts of automation and covers automatic controls, pneumatic control devices, hydraulic control devices, and electronic and electric control devices. The application of automation is studied from examples in the areas of materials handling and assembling, production of metals, metal casting processes, mechnaical working of metals, pressworking of metals, metal cutting operations, heat treating of metals, metal joining operations, and inspection and quality control. Prerequisite: Sixth term standing or approval of department head.

6.246 Industrial Electronics (3 Class Hrs/Wk) Term Units 3

A continuation of industrial electronics with emphasis on A-C principles and applications in industry. Covers alternating current characteristics, generation of A-C, vector diagram analysis, properties of electric circuits, and graphical representation of resistance, reactance and impedance. Single-phase circuits are analyzed in terms of power factor, and three-phase wye and delta combinations are studied. Also includes transformers and regulators, alternating-current generators, polyphase induction motors, synchronous motors and self-synchronous devices, single-phase motors, circuit-protective and switching equipment, electrical instruments and electrical measurement. Prerequistes: Sixth term standing or approval of department head.

6.247 Industrial Electronics Lab (3 Lab Hrs/Wk) Term Unit 1

The practical application of the theory studied in Industrial Electronics 6.246. Alternating-current theory and principles are verified by the construction and testing of circuits involving series resistance, inductance, and capacitance. Phase-angle, reactance, and impedance are calculated and checked, and vector diagrams are drawn to show current and voltage relationships. Three-phase transformers are wired in various delta-wye combinations and output voltages are calculated and verified. Small transformers are designed to deliver specified outputs. Alternating-current generators, poly-phase induction motors, synchronous motors, selsyn transmitters and receivers, and single-phase motors of all types are disassembled and their construction studied Various circuit-protective and switching equipment are connected from a test panel to motors and tested. All types of electrical measuring equipment are tested by application and a D-C, A-C vacuum tube voltmeter is constructed and tested. Prerequisites: Sixth term standing or approval of department head.

6.261 Technical Mathematics (3 Class, 2 Lab Hrs/Wk) Term Units 4

This is an applied course in mathematics on the technician level, covering the slide rule, tables and interpolation, additional applications in geometry, a review of fundamental algebraic operations, system of linear equations, functions and graphs, advanced applications of exponents and radicals, and quadratic equations in one unknown. Prerequisites: High school algebra or equivalent.

6.262 Technical Mathematics (3 Class, 2 Lab Hrs/Wk) Term Units 4

This is an applied couse in mathematics on the technician level, including logarithms, right and oblique triangle problem solving, trigonometric applications and review, vectors, trigonometric formulas, identities and equations and graphs of trigonometric functions. Prerequisite: Technical Mathematics 6.261 or equivalent.

6.266 Technical Mathematics (3 Class, 2 Lab Hrs/Wk) Term Units 4

This is an applied course in mathematics on the technician level, covering simultaneous quadratic equations, ratio and proportion, binomial theorem, arthmetic and geometric progressions, mathematics of investment, exponential functions, complex notation and vector algebra. Prerequisite: Technical Mathematics 6.262 or equivalent.

6.270 Technical Mathematics (3 Class, 2 Lab Hrs/Wk) Term Units 4

This is an introduction to differential and integral calculus. It is an applied course covering graphical methods, differentiation, and integration. Prerequisite: Technical Mathematics 6.266.

6.366 Applied Physics (3 Class, 2 Lab Hrs/Wk) Term Units 4

Magnetism and electricity, including basic electric currents, sources, electro-magnetism, alternating current, generators, and motors. Lab time is provided for demonstrations and experiments to clarify principles and procedures covered in class. Prerequisite: Technical Mathematics 6.262 or equivalent.

6.370 Applied Physics (3 Class, 2 Lab Hrs/Wk) Term Units 4

Physical laws and theories and mechanical principles, including mechanics of measurement, properties and structure of matter, solids, liquids, and gases, simple machines, work, power, and energy are studied. Laboratory time is provided for demonstrations and experiments to clarify principles and procedures covered in class. Prerequisites: Technical Mathematics 6.261 or equivalent. May be taken concurrently.

6.371 Applied Physics (3 Class, 2 Lab Hrs/Wk) Term Units 4

Covers principles of heat, light, and sound, including the study of temperature and the effects of heat, heat and change of state, heat transfer, heat engines, refrigeration, air conditioning, sound, application of sound, and nature of light. Laboratory time is provided for demonstrations and experiments to clarify principles and procedures covered in class. Prerequisite: Applied Physics 6.370 or equivalent.

6.500 Surveying Computations (1 Class, 4 Lab Hrs/Wk) Term Units 3

A review of trigonometry and logarithms with application to surveying. The course includes: Computing machines, planometers in application to irregular areas, calculations relating to traverses, subdivision of land and stadia. Survey plotting is also covered. Prerequisites: Plane Surveying 6.101, 6.103 and Technical Mathematics 6.262.

9.100 Blue Print Reading for Maintenance Personnel
9.110 Carburetion for Auto Mechanics (1½ Class, 1½ Lab Hrs/Wk)
9.111 Auto Electrical Systems (2 Class, 1 Lab Hrs/Wk)
9.112 Automotive Tune-up for Mechanics (2 Class, 1 Lab Hrs/Wk)
9.115 Machine Science - Maintenance (3 Class Hrs/Wk)
9.120 Mathematics for Maintenance Personnel (3 Class Hrs/Wk)
9.121 Planing Mill Operations (2 Class Hrs/Wk)
9.122 Plywood Manufacturing (2½ Hrs/Wk)
9.130 Electronics for Electricians (3 Class Hrs/Wk)
9.131 Electronics for Electricians (3 Class Hrs/Wk)
9.132 Electronics for Electricians (2 Class, 1 Lab Hrs/Wk)
9.133 Electronics For Electricians (Class 2, Lab 1/wk)
9.134 Electronics For Electricians (Class 2, Lab 1/wk)
9.136 Electronics for Telephone Personnel I (3 Class Hrs/Wk)
9.137 Electronics for Telephone Personnel II (3 Class Hrs/Wk)
9.138 Electronics for Telephone Personnel III (3 Class Hrs/Wk)
9.142 Radio and Television Servicing (2 Class, 2 Lab Hrs/Wk)
9.143 Radio and Television Servicing (2 Class, 2 Lab Hrs/Wk)
9.150 Welding (Beginning) (2 Class, 6 Lab Hrs/Wk)

9.161 Welding Advanced) (1 Class, 3 Lab Hrs/Wk)
9.162 Welding (2 Class, 6 Lab Hrs/Wk)
9.163 Welding (1 Class, 3 Lab Hrs/Wk)
9.170 Fire Training—Basic A
9.171 Fire Training—Basic B
9.172 Fire Training—Basic C
9.175 School Custodial Training
9.176 Floors and Floor Maintenance
9.177 Custodial
9.178 Heating III—Elect. Maintenance
9.181 Basic Menu Planning (3 Class Hrs/Wk)
9.186 Carpenter Apprentice Related
9.187 Industrial Electrician Apprentice Related
9.188 Inside Wireman Apprentice Related
9.189 Power Lineman Apprentice Related
9.190 Plumber Apprentice Related
9.191 Sheetmetal Apprentice Related
9.200 Administrative Management Seminar (Class 3 Hrs/Wk)
9.202 Small Business Records Mgmt.
9.700 Typing—First Term (4 Hrs/Wk)
9.703 Typing (4 Hrs/Wk)
9.707 Office Machines—Third Term (2 Class, 2 Lab Hrs/Wk)
9.715 Bookkeeping—First Term (3 Class, 3 Lab Hrs/Wk)
9.722 Shorthand—Third Term (2 Class, 4 Lab Hrs/Wk)
9.728 Accounting (4 Class Hrs/Wk)
9.729 Accounting (4 Class Hrs/Wk)
9.730 Accounting (4 Class Hrs/Wk)
9.731 Accounting (4 Class Hrs/Wk)
9.732 Payroll Accounting (4 Class Hrs/Wk)
9.900 Furniture Re-upholstery Lab. (3 Lab Hrs/Wk)
9.920 Basic Clothing Construction (Bishop I) (3 Lab Hrs/Wk)
9.922 Basic Fitting and Shirtmaking (Bishop II) (3 Lab Hrs/Wk)
9.923 Children's Clothing Construction (3 Lab Hrs/Wk)
9.924 Tailoring A Coat (Bishop III) (3 Lab Hrs/Wk)
9.925 Tailoring A Suit (Bishop IV) (3 Lab Hrs/Wk)
9.936 Child Care I (2 Class Hrs/Wk)
9.940 Family Financial Counseling (2 Class Hrs/Wk)
9.941 Family Finance and Resource Management (2 Hr Lecture)
9.942 Home Furnishings (3 Lab Hrs/Wk)
0.100 Adult Driver Training (6 Class, 7 Lab Hrs./Term)
0.110 Wood Working Practices (Shop) (3 Hrs/Wk)
0.200 Fire Training Instruction Methods
0.500 Pre-Technical Mathematics (PT) (4 Class Hrs/Wk)
0.501 Corrective English (3 Class Hrs/Wk) (See also Wr 50)
0.516 Methods of Study (Remedial) (3 Class Hrs/Wk)
0.541 Beginning Drawing (3 Lab Hrs/Wk)
0.543 Water Color and Color Theory II (2 Class, 4 Lab Hrs/Wk)
0.545 Painting, Oil, Etc. III (3 Lab Hrs/Wk)
0.600 Conversational Spanish (2 Class Hrs/Wk)
0.601 Conversational Spanish (2 Class Hrs/Wk)
0.602 Conversational Spanish (2 Class Hrs/Wk)
0.606 Conversational French (2 Class Hrs/Wk)
0.607 Conversational French (2 Class Hrs/Wk)
0.608 Conversational French (2 Class Hrs/Wk)
0.612 Conversational German (2 Class Hrs/Wk)
0.613 Conversational German (2 Class Hrs/Wk)
0.614 Conversational German (2 Class Hrs/Wk)

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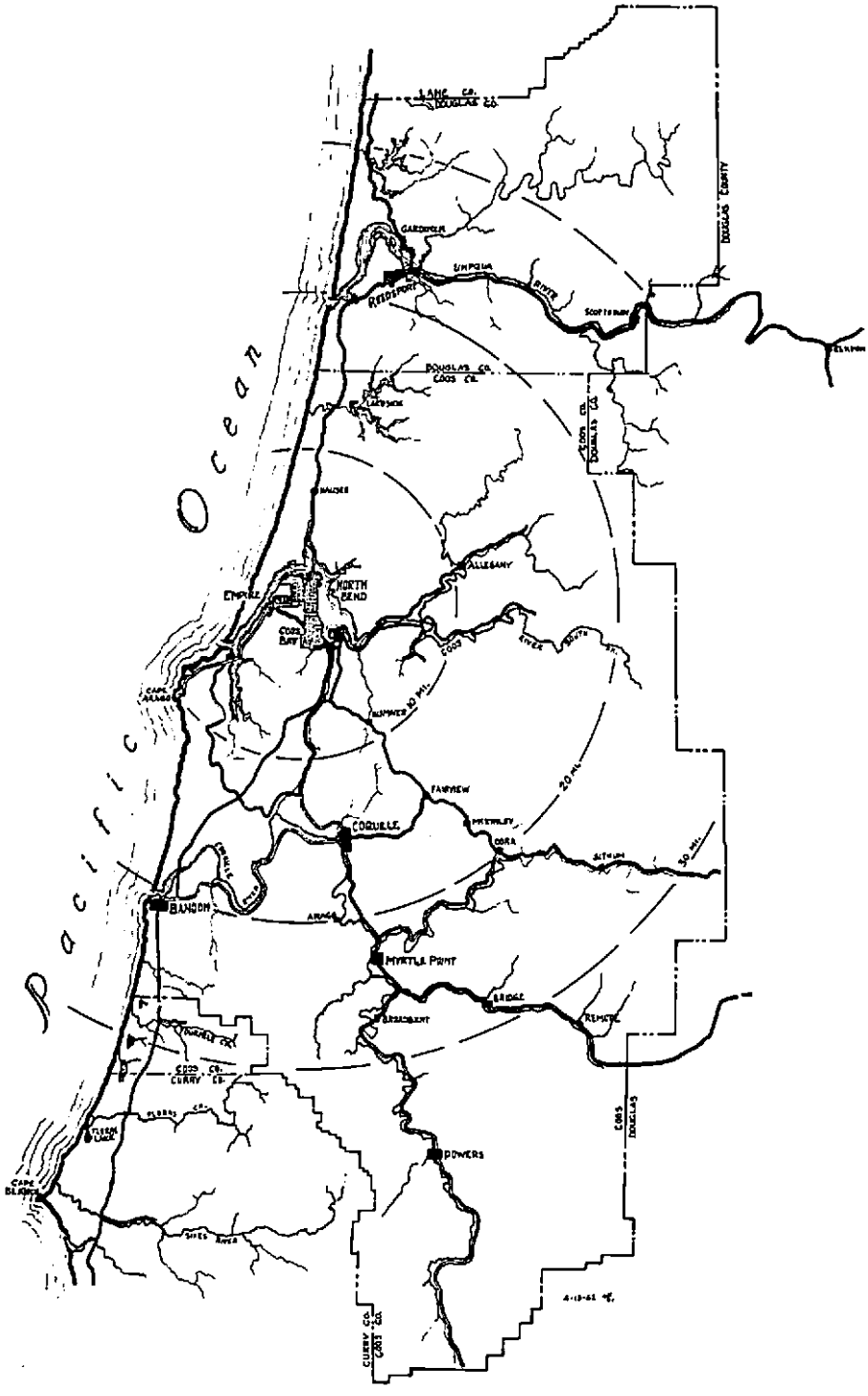

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