Academic Calendar – Southwestern Oregon Community College

SUMMER SESSION 1970
June 16, Tuesday ............................................................ Placement Examination
June 22, Monday .............................................................. Registration for Summer Session
June 23, Tuesday ............................................................... Classes Begin
June 24, Wednesday ............................................................ Late registration fee charges begin
July 3, Friday ................................................................. Last day for registration or addition of courses
July 24, Friday ............................................................... Last day to withdraw without possibility of penalty
August 14, Friday ............................................................ Summer Session ends

FALL TERM, 1970
September 14-18 .................................................. Advising, Orientation for Fall Term
September 24 and 25 ................................ Registration (consult class schedule for details)
September 28, Monday .................................................. Classes Begin
September 29, Tuesday ........................................................ Late registration fee charges begin
October 9, Friday ..................................................... Last day for registration or addition of courses
November 6, Friday .................................................. Last day to withdraw without possibility of penalty
November 26-29 .......................................................... Thanksgiving Day Holiday
December 14-18 ............................................................... Term Examinations

SPRING TERM, 1971
March 8-19 .......................................................... Advising, Orientation for Spring Term
March 29, Monday .......................................................... Registration
March 30, Tuesday .......................................................... Classes Begin
March 31, Wednesday .................................................. Late registration fee charges begin
April 9, Friday .......................................................... Last day for registration or addition of courses
May 7, Friday .......................................................... Last day to withdraw without possibility of penalty
May 30-31 ........................................................... Memorial Day
June 7-11 ............................................................... Term Examinations
June 13 ............................................................. Graduation Exercises

SUMMER SESSION 1971
June 21, Monday ............................................................ Registration for Summer Session

PUBLISHED BY SOUTHWESTERN OREGON AREA EDUCATION DISTRICT
Southwestern Oregon Community College

LOCATION
Southwestern Oregon Community College is situated on a 125 acre campus, bordering the Empire Lakes in Coos Bay, Oregon. The surrounding urban area is comprised of the municipalities of North Bend, Coos Bay, Eastside, and several unincorporated communities. Access to the campus is from Newmark Avenue in Coos Bay, a through road to highway 101, the main North-South coastal route.

HISTORY
The 1970-71 academic year at Southwestern Oregon Community College will be the tenth year of operation. The courses of study for lower-division students, adults seeking cultural or general education experiences, students training for technical occupations, and employed residents of the district seeking to keep abreast of new developments in their fields have already touched directly an estimated 14,000 individuals.

Voter approval was given the formation of a community college district and directors were elected in a special election held on May 1, 1961. By September 25 of 1961, the first day of classes for the new college, approximately 266 students had enrolled. The college growth and acceptance is demonstrated by the fact that over 2,000 students enrolled during the winter quarter of 1970.

FACILITIES
Southwestern Oregon Community College students meet for classes in the old Sunset Avenue School near the airport in North Bend. The gymnasium, left over from the Navy's stay during World War II, was renovated and became part of what is now known as the "North Bend Campus." Many classes were held at Marshfield High School. Because of the lack of adequate space, evening programs predominated during the first year.

In 1962 the east wing of the Michigan Avenue School in Empire was leased by the college. Several of Southwestern Oregon Community College's technical and business programs utilized the six rooms in the Empire school until fall, 1964.

Administrative facilities, which at first were divided between the North Bend campus and Marshfield High School, also were expanded during 1962. The old hotel building became the college administration building, and facilities formerly located at Marshfield High and at the airport moved "up the hill."

During the 1963-64 school year, the college again expanded facilities by leasing the former Naval Reserve building near the airport. Two new buildings were completed at the Empire Campus during this period.

In September, 1965, three additional permanent buildings were completed and available to the college: a classroom building, a laboratory building, and an administration building which also houses a Counseling Center. A library and physical education building were completed during the fall of 1967. The Learning Resource Center was completed in 1969. The total developed area of the campus will soon be almost forty acres. Seven permanent buildings are being utilized.

Existing facilities have enabled the College to emphasize daytime curricula. As a result, more full-time students are engaged in the various courses of study offered at Southwestern Oregon Community College. Evening programs do, however, continue to constitute an important part of the total college offerings.

The years ahead will see further additions to the campus including a community service building, a Fine Arts Center, and a natural science building. The Empire Lakes campus has been planned to accommodate between 2500 and 3000 students by 1972.

ACCREDITATION
Southwestern Oregon Community College is accredited by the Northwest Association of Secondary and Higher Schools. In addition, the curricula and standards are approved by the Oregon State Department of Education. All lower-division transfer courses applicable to a baccalaureate degree are approved by the Oregon State System of Higher Education.

FACULTY
In all cases faculty members are approved either by the Oregon State System of Higher Education or the Oregon Board of Education. The number of full-time teachers has increased each year, from less than twenty in 1961 to over fifty today. Part-time instructors continue to serve in many areas.

ADMINISTRATION
Representing the patrons of the district in the conduct of college affairs is the group known as the Board of Education, Southwestern Oregon Area Education District. The Board makes the policy which the Presi-
About the College

dent puts into operation and decides what is needed and how it can be obtained. The Board is assisted by a Budget Committee.
Today, President Jack E. Brookins, the college's chief administrator, is assisted by a Dean of Instruction, an Assistant Dean of Instruction, Dean of Student Services, Coordinator of Community Services, and a Business Manager.

In all endeavors, Southwestern Oregon Community College has moved ahead gathering tradition and experience. The formative years continue. The challenge remains great. The support of the residents of the education district has made progress possible. Southwestern Oregon Community College is a community college—socially, culturally, and educationally.

PURPOSES
Southwestern Oregon Community College, serving the Southwestern Oregon Area Education district, is a community college. It serves college-bound youth, youth aspiring to a career in a technical field, adults seeking cultural or general education experiences, and workers desiring to keep abreast of new developments in their field or to gain new skills.

The Board of Education of Southwestern Oregon Community College is guided in their policy-making decisions by a set of purposes. These purposes explain what the college offers to the community:

- **Lower Division College** transfer and preprofessional education as an integral part of the Oregon State System of Higher Education;
- **Occupational-Vocational** education for those students whose formal education will end when they finish college;
- **Continuing Education** to assist in meeting the many educational and occupational training needs of adults living in the area served by Southwestern Oregon Community College;
- **General Education** opportunities for those with professional or vocational objectives, as well as for those who aspire to a liberal education;
- **Guidance and Counseling** so that every student may discover his aptitudes, make a wise occupational selection and prepare for the successful pursuit of his life's work.
- **Special Services** to the community, such as lectures, cultural programs, testing and counseling for non-high school graduates, public forums, institutes, and short courses.

LEARNING RESOURCE CENTER

The Learning Resource Center in Tioga Hall is the campus' newest building—five levels housing the Library, Study Center, Listening Center, Bookstore, Lounge, Audio-Visual and Instructional Materials Centers, Classrooms, Studios and Offices. It maintains a balanced collection of materials to inform, excite and challenge the mind. The LRC houses a basic reference collection, the latest books in the liberal arts, technical and vocational fields; current popular and professional periodicals and a representative selection of metropolitan newspapers. Nonprint materials and equipment utilized by students, faculty and the community include recordings, audio tape, video tape, slides and film-strips, 8-mm and 16-mm films; transparencies, oversize prints, projectors, recorders, and other instructional materials.

BOOKSTORE

Required textbooks and classroom supplies can be purchased at the College bookstore in the Learning Resource Center.

SUMMER SESSION

The only requirement for admission to summer session is the ability to do the work. Those persons who wish to work toward degrees and those who expect to attend sessions during the Fall, Winter, and Spring at Southwestern Oregon Community College must meet standard admission requirements.

COMMUNITY SERVICE PROGRAM

The community service program of the College includes a wide variety of activities. The College cooperates with many community groups and agencies in the operation of the program. Included among the activities are lectures and forums, concerts, the annual film series, college speakers' bureau, the Fine Arts Festival, special workshops and institutes, the Great Decisions program. The College has cooperated with such groups as the Little Theater on the Bay and the Coos Artists League in the development of some activities and programs.

The College expands its off-campus activities to offer classes in other communities if there is need and sufficient enrollment to justify them.
Board of Education, Budget Committee, Administration, Foundation

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Admissions and Registration

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Admission Procedure

WHO MAY ENROLL

Students who are graduates of accredited high schools or have an equivalency certificate or are at least 18 years of age are eligible for admission to Southwestern Oregon Community College. Other students may be granted admission by the Coordinator of Admissions.

ADMISSION PROCEDURE

To be officially admitted to the college as a regular student, the following items must be on file in the Admissions office:

1. Application for Admission to Southwestern Oregon Community College. The application form may be obtained at the college or at any one of the high schools in the college district.

2. Official transcripts of all high school work. (If the student has passed the G.E.D. examination, the certificate should be presented). Although graduation from High School is strongly urged, it is not required for enrollment at the college.

3. Official transcripts from all colleges and universities which the student has attended since high school.

4. Scores from the SWOCC placement tests (scores from such entrance examination as the ACT, or CEEB, including SAT, English ACH, and Math ACH, may be filed to assist in advising). The SWOCC placement tests are given at regularly announced times throughout the year.

5. New students are strongly urged to attend one of the preregistration Orientation Seminars, held throughout the summer. A student is eligible to attend a seminar as soon as he has filed an application for admission and has taken the placement examinations. Enrollment for each seminar is limited; thus, it is necessary to secure a reservation for a specific seminar. This may be done through the Student Services Office.

REGISTRATION PROCEDURE

Details of the final registration procedure are discussed with the student at the preregistration interview.

Each student must register in person and is not officially registered until tuition and fees have been paid.

A quarterly schedule of classes is published in advance of each registration period. This schedule contains specific registration instructions.

WITHDRAWAL

Students desiring to withdraw from one or more courses (or from the college) will need to follow the appropriate procedure as outlined below:

Before the end of the sixth week of the term: The student should file a drop-add card with the Admissions Office. The student should consult with his advisor and instructors, and obtain their signatures on the form. No record of the courses dropped will appear on the transcript and no grade is assigned.

After the end of the sixth week of the term: A student may withdraw from courses (or from the college) by consulting with his advisor, instructors, and a counselor and obtaining their signatures on the withdrawal form. A grade will be assigned by the instructor. Responsibility for withdrawal rests with the student; ceasing to attend does not constitute withdrawal. Failure to withdraw formally may result in an "F" in the course. Under exceptional circumstances students may initiate withdrawal by a letter written to the Coordinator of Admissions. Proper withdrawal is noted on the student's transcript and protects his academic record.

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 affect the right of the president of the college to levy special charges at any time should conditions make them necessary.
Payment of the stipulated fee 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, counseling and testing services, subscription to the student newspaper, and admission to certain 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

Regular curriculum students. This applies to a program of eight or more credits (15 or more clock hours of Technical-Vocational work) per term ........................................ $90.00

Note: Fees as listed include a $10.00 student activity fee.

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 ........................................ 50.00

Out-of-district resident in state. In addition to full-time fee, per term ........................................ 45.00

Out-of-state fee. In addition to full-time fee, per term ........................................ 90.00

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. 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%

Out-of-state; additional course fee ........................................ 100%

Note: The above amounts include student body fees.

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.

Performance Studies Fee—per credit hour ........................................ $30.00

Performance fees are special fees for each credit hour earned in the private study of a musical instrument (music 190 or 290).

Late Registration Fee: ($5.00 maximum) (Charges begin after the second class session) ........................................ per day $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.

Reinstatement Fee ........................................ $2.00

If for any reason a student has his registration canceled during a term but is later allowed to reenter, he must pay the reinstatement fee.

Transcript Fee ........................................ $5.00 and $1.00

Each student is entitled to his first transcript fee. Subsequent copies will be furnished at the rate of $1.00 first copy and $0.50 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

Challenge Examination Fee ........................................ $15
TUITION OFFSET ALLOWANCE

A tuition offset plan established by the college board is in effect for students residing in the college district. An offset against tuition is made in accordance with the school district in which the student resides.

- Bandon, Coquille, Reedsport, or students living beyond 15 miles from campus ........................................ 25% Reduction
- Myrtle Point .......................................................... 50% Reduction
- Powers ................................................................. 100% Reduction

The above reduction will apply to the $800.00 tuition charge for all students who are enrolled for 12 or more credits/units and whose legal permanent residence is within Southwestern Oregon Area Education District and located the above distances from the campus. All student body fees will still be due in addition to the tuition charge.

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 business office before the end of the term in which the claim originates.

2. The amount of any refund is calculated from the date the written withdrawal 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 tuition refund schedule:

   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 will be authorized after the second session of special "seminars" or "workshops" scheduled for six weeks or less.

5. Student body fees paid are nonrefundable.

6. The amounts to be refunded apply only to the tuition portion of the fees.
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ADVISING
Each new student is assigned to a faculty advisor on the basis of expressed educational and/or vocational interests upon admission. Advising is considered a most important guidance function at the College. Each student is encouraged to use fully the services offered by his advisor.

The ultimate responsibility for course and program choice rests with each student. However, academic advisors can, in large measure, assist a student in securing and interpreting information basic to academic and vocational decision making.

FOREIGN STUDENT ADVISING
The college is authorized under federal law to enroll nonimmigrant alien students.

The Office of Admissions, in cooperation with the Foreign Student Advisor, determines the eligibility of the foreign students for admission to the college; such decisions are related to the proficiency in the English language which the student has achieved. Since the college does not yet have the facilities to teach "English as a foreign language," we must be assured that the student is in a position to read, write, and speak English. Special assistance in English is available to foreign students on the same basis as to students from the United States.

An advisor to foreign students is available to assist with academic, vocational, or personal problems related to their adjustment to college life in the United States.

COUNSELING AND TESTING
The Counseling Center offers counseling and testing services to all students and staff. Frequently a student is faced with decision-making regarding selection of an academic major, vocational interest area, or resolution of interpersonal concern. Services are available for educational, vocational, and personal counseling. Students are assisted in determining interests and aptitudes for various occupational areas, identifying possible causes of difficulty in academic courses, improving study skills, determining proper areas of study, and coping with personal and social problems. Professional counselors are available in a confidential setting to discuss any type of problem a student may feel of importance. Group meetings may be arranged for students presenting similar difficulties.

Counselors work closely with faculty advisors and the instructional divisions of the College. Students may be referred by any college faculty member or make their own appointments on a "drop-in" basis. Counseling is provided to any adult residing within the Southwestern Oregon Area Education District who may wish assistance with questions of educational or occupational development. A close working relationship is maintained with the Oregon Board of Education, Oregon State Employment Service, and Division of Vocational Rehabilitation to assist adults in their educational and vocational planning.

The Student Services Office maintains a library of educational and vocational information. Catalogs from many educational institutions and most western schools and colleges are available for reference. There is no charge for counseling or testing services.

STUDY CENTER
The Study Center offers a program of individualized instruction and counseling designed to help assure successful achievement in college courses through the improvement of reading, writing, listening, computational and study skills.

Students whose diagnostic tests indicate a need for assistance in these areas will find the opportunity for improvement of skills in the Study Center.

Students who wish to improve upon basic communication and computational skills may enroll in the Study Center which offers an opportunity to work with instructors on an individual basis or in small groups.

The Study Center includes two areas: the Communications Workshop where students can work on improvement of reading, writing, listening, and study skills; and the Math Workshop which provides assistance with computational skills, ranging from basic to higher mathematics.

GENERAL EDUCATIONAL DEVELOPMENT EXAMINATIONS (GED)
The Office of Student Services offers GED Examinations for adults who have not graduated from high school and who would like to obtain a Certificate of Equivalency. The staff will explain necessary requirements for taking the examination and can recommend various study materials designed to improve an individual's chances for success on the test. Counseling to assist in further educational and/or vocational development after completing the GED Examination is also available. There is no fee for any of these services.
FINANCIAL AID

The financial aids program at Southwestern Oregon Community College includes student employment, grants-in-aid, scholarships, and loans. The administration of scholarship and loan programs is handled by the Southwestern Oregon College Foundation, Inc., a separate nonprofit corporation made up of interested citizens from throughout Coos and Douglas counties. The program is coordinated by the Faculty Scholarship and Loan Committee.

District Scholarships: The College Board of Education has authorized full tuition scholarships for four full-time students (students carrying 15 credits/units or more) from each of the high school districts within the college district. Two of these scholarships per district are awarded on the basis of need and general citizenship. The other two scholarships are awarded to a freshman and second year student from each high school district, based on merit, with equal consideration given to liberal arts and vocational students. In addition, one district scholarship each is authorized for the student body president and the editor of the “Southwester,” the student newspaper. Applications for District Scholarships including a transcript of high school grades, must be completed and submitted to the Financial Aid Office no later than April 1.

General Scholarships and Grants-in-Aid: Various organizations and individuals contribute funds to provide students in financial need with tuition scholarships. A limited number of grants-in-aid are awarded to students showing exceptional need for payment of tuition and books. Applications for college scholarships and grants-in-aid are available from the Financial Aid Office or from high school principals and counselors.

Music Scholarships
(a) Applied Music Scholarships: Thirty dollar awards to pay the extra tuition fees required each term for all music majors for private music instruction. These scholarships are awarded to qualified music students each term on the basis of ability, interest, and need. Students awarded Applied Music Scholarships are expected to maintain a “B” average in their private music study and participate in a college music-performing group (choir, band, orchestra).
(b) Performance Scholarships: Six dollar (nontransfer) or twelve dollar (transfer) awards to pay tuition fees for participation in one of the college performing groups (choir, band, orchestra) are awarded each term to those musicians able to make a positive contribution to a performing group through active participation.

Student Loans: The Scholarship and Loan Committee administers funds providing for loans to eligible students for a period of up to one year. Students enrolled for 12 credits or units are eligible to apply for maximum loans, while any student who is enrolled at Southwestern Oregon Community College is eligible to apply for a minimum loan under a shorter term contract. Loan applications are available at the Financial Aid Office. Contributors to the fund from which these loans are made include:

- Mr. Jack Brookins
- Mr. John Dellenback
- North Bend Business and Professional Women’s Club
- P.E.O. Sisterhood
- Dr. and Mrs. Quinn
- SWOCC Women’s Club
- Coquille Soroptimists Club

MEMORIAL LOAN FUNDS

- Hazel Hanna Loan Fund
- Beuchemin-Swanson Memorial Loan Fund
- Linda Koonce Memorial Loan Fund
- Rodney Hickenlooper Memorial Loan Fund
- Dora Burr Memorial Loan Fund

SPECIAL LOAN FUNDS

LICENSED PRACTICAL NURSES LOAN FUND
PIONEER PTA LOAN FUND (Reedsport Students)

Southwestern Oregon Community College is a participating institution in the following programs of federal assistance in financing a college education authorized under the National Defense Education Act of 1958, The Economic Opportunity Act of 1964 and the Higher Education Act of 1965:

National Defense Student Loans: A program of borrowing primarily for needy students, in which the student has an obligation to repay his loan, with 3 percent interest within a 10-year period following college attendance.

Guaranteed Loans: A program of borrowing through the bank of the student’s choice. This loan is primarily for students from middle or upper income families. The student has an obligation to repay his loan with a 7 percent interest.
Student Services

Educational Opportunity Grants: A program of direct grants in which the student receives a nonobligating award of funds, based on exceptional financial need and evidence of academic or creative promise.

College Work-Study: A program of employment in which the student, primarily one from a low-income family, is compensated for the number of hours he works for the institution or for an eligible off-campus agency. Additional information about these programs may be obtained from the Financial Aid Office.

Student Employment: A limited number of on-campus jobs are available to students at SWOCC. Information about off-campus jobs and applications for employment may be obtained from the Financial Aid Office.

JOB PLACEMENT
Assistance in job placement is given to graduates of Southwestern Oregon Community College. Placement interviews are arranged through the Office of Student Services with businesses, industries, and governmental agencies.

STUDENT HOUSING
The College does not provide campus housing for students. The Office of Student Services maintains a list of living accommodations available to students. The College assumes no responsibility in negotiating housing agreements between students and renters. Responsibility for securing adequate living arrangements rests with the student and/or his parents.

STUDENT CENTER
The Student Center is temporarily located in the Learning Resource Center. The Center houses the Student Government and Student Activities Office, and some food service. The Center is open throughout the day and evening hours for browsing, student-faculty visiting, studying, and snacks.

STUDENT ACTIVITIES
The student activities program is planned to serve all students of the college. Student Government offices are located in the Student Center. Student publications include the campus newspaper, The Southwester and the campus magazine and Student Handbook. The ASG constitution contains the rules and regulations under which the student government operates.

The following clubs and organizations have been established on the campus at Southwestern Oregon Community College:

- Fine Arts Club
- Pep Band
- Young Republicans
- Young Democrats
- Circle K
- Lettermen's Club
- Phi Beta Lambda

INTERNAMURALS AND ATHLETICS
An 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.

Southwestern Oregon Community College is a member of the National Junior College Athletic Association and the Oregon Community College Athletic Association. Competition in various major and minor sports is arranged with other colleges of the Oregon Association and with junior varsity and freshman teams from four-year institutions.

Athletic activities at the college include basketball, track, cross country, wrestling, baseball, softball, golf and tennis.

STUDENT TUTORIAL PROGRAM
The Tutorial Program is designed for those interested in helping others in an educational setting. Tutors usually volunteer for a few hours a week in area schools, or occasionally on campus, functioning on a one-to-one (or very small group) basis. The primary focus is on helping students who are having difficulty in school, usually in specific subject areas. The program is open to anyone interested in tutoring.

STUDENT CONDUCT AND APPEALS
The college assumes that students in attendance will conduct themselves according to acceptable standards and will abide by policies and procedures established for all students. Students unwilling to comply with these codes may be suspended or expelled.

A student who receives disciplinary action may appeal to the student affairs committee if he wishes.

STUDENT REVIEWS
Under unusual circumstances, current academic requirements may be reviewed by the college at the request of individual students. Requests for such reviews originate with the student who must fill out and file a petition form obtainable from the Admissions Office.
Technical-Vocational, Adult and General Education
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THE TECHNICAL- VOCATIONAL, ADULT AND GENERAL EDUCATION PROGRAMS

The courses and curricula offered at Southwestern Oregon Community College have a wide variety of objectives. They are designed to serve a diversified group of individuals through the following types of programs:

1. Occupational Preparatory Program. These curricula and courses are designed to prepare students for successful entrance into employment. They include preparation for semiprofessional, technical, skilled, semiskilled and service occupations in general industry categories such as agriculture, business and commerce, sales and distribution, manufacturing and construction. Curricula are designed to provide an optimum balance between specialized and general education requirements for each occupational area included.

2. Occupational Extension Program. These curricula and courses are designed to upgrade the skills and knowledge of employed workers, or persons who are temporarily unemployed, in a variety of subject-matter, occupational or industrial areas. These courses are developed to provide a continuing education program for the employed worker so that he may keep up to date and adjust to the changing skill and knowledge requirements which are demanded in a complex and dynamic industrial society.

Most occupations and industries may be included in the occupational extension program. Some of the areas include: agriculture, business and commerce, sales and distribution, homemaking, industrial and service occupations, technical and semiprofessional occupations, and supervisory and management training.

3. General Education Program. The general education program of the college provides courses for preparatory, extension and special students. Courses are designed to aid the student in attaining an optimum degree of self-development and assist him in making the maximum contribution as an informed and intelligent citizen in a democratic society. Areas included in the general educational program are: communications and language arts, social and behavioral sciences, science and mathematics, and the humanities and fine arts.

4. Adult Education Program. The adult education program of the College provides a wide variety of general and special courses (because of their special and changing nature many are not listed in the catalog.) Almost any type of course or program may be organized by the College provided there is a need and the staff and other resources are available. The primary purpose of the adult education program is to assist adults to deal effectively with the ideas, concepts and areas of knowledge which will enable them to better cope with their social and physical environment.

5. Community Service Program. The community service program provides a wide variety of services and activities including: lectures and forums, concerts, film series, special seminars and convocations, speakers bureau and others. Many groups and individuals within the college district cooperate with the College in the development and operation of the community service program.

ENTRANCE REQUIREMENTS

The general college entrance requirements apply to all programs in the division (see page 15). Certain curricula and courses have specific entrance requirements. Students are advised to read carefully specific curricula and course requirements.

DEGREES, DIPLOMAS AND CERTIFICATES

The Associate in Science Degree is offered for certain two-year technical-vocational curricula in the College. Other programs of study provide for diplomas or certificates (see individual curricula and programs for detailed requirements).

The associate degree is provided for programs requiring the equivalent of two years (six terms) of full-time study — minimum of 90 term units. The diploma is provided for programs requiring the equivalent of one year (three terms) of full-time study — minimum of 45 term units. The certificate, when authorized, generally requires the equivalent of one term of full-time study — minimum of 15 term units.

COLLEGE TRANSFER CREDIT

Applicants must clearly understand that term units of credit in technical-vocational, adult and general education courses provided in the division may not be transferable to other institutions of higher education.

ADVISORY COMMITTEES

The curricula and courses of the technical-vocational division of the College are planned and operated with the advice and counsel of repre-
DEPARTMENTS AND CURRICULA
The following general programs and curricula are provided in the program of studies of the College (see pages 45 to 59 for individual course descriptions).

AGRICULTURE
Although there are no specific programs or curricula planned in the field of agriculture, many of the individual course offerings of the College apply to this important field. Selected preparatory and extension courses, as well as most of the general education courses, apply directly to agriculture and the field currently known as agribusiness. Courses in business, metals and mechanics, the engineering technologies and wood industries technology are related to agriculture. Additionally, special courses in many agricultural fields may be planned and operated by the College upon request; e.g., livestock, feeds and feeding, soils, farm management and accounting, and so forth.

BUSINESS DEPARTMENT
The business department offers a wide variety of occupational preparatory and occupational extension courses. They include office and clerical occupations, bookkeeping and accounting, business data processing, sales and merchandising, and business management. A special feature of certain business department programs includes provision for work experience credit during the second year of Business Technology and Secretarial Technology.

Business Technology
The associate degree program in business technology is designed to prepare persons for employment in a variety of business and sales establishments. During the second year of the program, the student may choose to take part of his program in paid and supervised work experience or complete the requirements in regular college classes. Students may prepare for specialization in various types of department or specialty stores, other retail and wholesale sales establishments, real estate, insurance, accounting, data processing and other business or sales areas. The program is extremely flexible allowing a wide variety of specialization through the work experience phase of the program.

Basic course work required in the program includes mathematics, English, social science, salesmanship, business law, office procedures, marketing, retailing and accounting.

Additional information including detailed course requirements may be obtained from the College.

Secretarial Technology
This associate degree program is designed to prepare persons for various clerical and stenographic positions. The first year program requires work in mathematics, English, typing, shorthand, office procedures, office machines and social science.

During the second year, the student may elect to take full-time course work on campus or pursue a half-time supervised work experience program for credit. Specialization in the work experience program may be in many fields including legal, medical, insurance, real estate and similar fields. Second year courses include advanced typing, transcription, business communications and business law.

Additional information regarding the Secretarial Technology program including detailed course requirements may be obtained from the College.

Data Processing Technology
This associate degree program is designed to prepare persons for various positions in the data processing and computer technology fields. The first year program requires work in mathematics, English, accounting, computer operations, and electric accounting machines.

During the second year, the student specializes in programming and data processing systems and procedures. Other second year courses include statistics, cost accounting and general education electives.

Certificate Programs
The business department also offers three one-year certificate programs. The Bookkeeping-Clerical certificate program requires three terms of course work totaling a minimum of 45 term units. Course requirements include
English, mathematics, accounting, typing, office procedures and office machines. Persons completing the program are qualified for entry-level jobs in bookkeeping or clerical work including clerk-typist and receptionist. The Stenography certificate program also requires three terms and a minimum of 45 units of course work. Persons completing are qualified for entry-level stenography positions. Course requirements include typing, shorthand, business mathematics, English, filing, office procedures and office machines. The Data Processing certificate program requires three terms and a minimum of 45 units of course work. Persons completing are qualified for entry-level tab machine operators, computer operators, Peripheral Equipment operators, Coders and Programmer trainee. Course requirements include mathematics, English, accounting, computer operation, and electric accounting machines.

Additional information regarding these programs may be obtained from the College.

CONSTRUCTION TRADES

There are many individual courses offered by the College which will prepare persons for entry-level jobs or apprenticeships in this industry. Courses in mathematics, drafting, electricity, mechanics, metals, applied physics, and surveying can provide important skills and knowledge for persons who wish to enter an apprenticeship in any of the following occupations: carpenter, cabinetmaker, plumber, metalworker, roofer, painter, electrician, bricklayer, tile setter, and many others.

The College also offers related instruction classes for registered apprentices in the building and construction trades. Special classes may also be organized and operated for journeymen and other employed workers in the construction industry.

ELECTRICAL-ELECTRONICS DEPARTMENT

The electrical-electronics department offers programs and courses for full and part-time students—for persons preparing for employment in electrical and electronic occupations. There is no area where knowledge and technology is advancing more rapidly than in the wide variety of occupations and industries covered in electricity and electronics.

Electrical-Electronic Technology

This two-year associate degree program is designed to prepare persons for a number of skilled and technical occupations in the electrical and electronic fields. The student may prepare for apprenticeships in the inside wiring (electrician) field, electrical maintenance, radio-televison-appliance servicing, radio-telephone-telegraphic communications, or electrical and electronics work in many industries including aero-space, nucleonics and many others.

The program is designed around basic principles, theory and laboratory work in electricity and electronics. Related courses in the curriculum include technical mathematics, applied physics, English, social science, drafting and engineering problems. Completion of high school algebra is essential and science courses, particularly physics, are recommended. Detailed curricular and course information is available from the College upon request.

Special Programs and Courses

The department also offers other special programs and courses for individuals and industries in the area served by the College. Related classes for registered electrical apprentices in the maintenance and construction fields are a regular part of the program of studies. Special courses for other employed workers are also planned and operated as needed. A knowledge and understanding of electricity and electronics is now required in many occupations and industries—the College does its best to fulfill these needs as they arise. Persons interested in such courses should contact the College for information.

HOME ECONOMICS DEPARTMENT

The home economics department offers courses in clothing selection and construction (Bishop Method), home planning and decoration, foods and nutrition, child care, family living, home management, and consumer education. Regular courses are listed under the 0.900 - 0.972 and 7.100 series and 9.900 number series in the “Course Description” section of the catalog. Persons interested in organizing special courses or programs in home and family living areas, or in occupational areas related to homemaking, should contact the College.

LAW ENFORCEMENT (Police Science)

The curriculum in Law Enforcement prepares young men and women for careers in law enforcement agencies such as police departments and sherrifs' offices. This two-year associate degree program is planned and operated with the cooperation of the Peace Officers Committee of Region III (Lane, Douglas, Coos and Curry Counties) and the State Advisory
Board on Police Standards and Training. It also provides opportunities for persons already employed in law enforcement to obtain further training for added skills and knowledge or retraining which will help them qualify for promotions.

In addition to selected general education courses, the program of studies covers basic police science, knowledge, skills and techniques. Courses include: introduction to law enforcement, administration of justice, criminal law, investigation, evidence, firearms and defensive tactics. Detailed information and program requirements are available from the College.

**METAL - MECHANICAL DEPARTMENT**

The metal-mechanical department offers a two-year associate degree curriculum in Industrial Mechanics as well as other special programs and courses. Its courses are intended for persons preparing for initial employment in metals or mechanical occupations and for employed workers who wish to upgrade their job skills and knowledge. Instruction areas in the department include machine shop, sheetmetal, metallurgy and heat treatment, welding, power plants, power transmission, general mechanics, pneumatics and hydraulics.

**Industrial Mechanics**

The general two-year associate degree program in industrial mechanics is designed to lead to entry-level jobs in a number of occupations and industries. It prepares persons for occupations such as automotive mechanic, truck or heavy duty equipment mechanic, small engine mechanic and maintenance mechanic in construction, manufacturing and service-type industries. It also provides excellent background and entry-level skills for occupations such as machinist, sheet metal worker, millwright and industrial or mechanical technician.

The course requirements in this program include practical mathematics and physics, communications, social science and drafting. Major area courses include welding, metallurgy, metal and machine work, pneumatics and pneumatics, gasoline engines and other power plants, chassis and brake systems, power transmission systems, fuel systems and carburetion, and electrical systems. High school courses in drafting, mathematics and physical science are recommended.

Specific curricular requirements and additional information regarding the program are available upon request.

**Part-Time Programs and Courses**

Students may enroll in the industrial mechanics curriculum on a part-time basis if they wish. The College also offers an extensive gas and heliarc welding program for employed workers who need knowledge and skill in the field. A number of evening courses in automotive carburetion, electricity and tune-up are also available for employed mechanics. Many other courses such as blueprint reading, machine maintenance and erection, industrial materials and processes, heating and air conditioning are also available. Additional information may be secured from the College.

The College also offers related instruction classes for apprentices in metalworking and mechanical occupations.

**PRACTICAL NURSING**

This 4 quarter 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.

**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.

Applications for admission to Practical Nurse Training must be filed by April 15.

**SUPERVISORY TRAINING**

This program is planned as a series of courses and supervisory methods, theory and practices. The courses are available to individuals who are currently involved in supervisory duties or to persons who aspire to supervisory positions.
An interested individual may elect to follow one of three planned programs, depending upon his ultimate needs, culminating in a certificate, a diploma or an Associate Degree. Instructors for these courses are selected from industry on the basis of experience and special competence in the course to be taught. Persons interested in these programs may obtain additional information from the College.

**WOOD INDUSTRIES TECHNOLOGY**

This two-year associate degree curriculum prepares technical or semiprofessional employees for the lumber, wood products and forestry industries. Graduates may work for private industry in woods or mill operations or for various government agencies at state and national levels. Types of work include forest and logging engineering, forest development and conservation, road building, surveying and mapping, fire protection and control, cruising, scaling and many areas of technical work in lumber, plywood and pulp mills.

Courses required in the curriculum include general forestry, technical physics and chemistry, technical mathematics, forest botany, English, social science, forest operations and engineering, mensuration, surveying and mapping. Detailed information and curriculum requirements are available from the College.

**PART-TIME AND SPECIAL PROGRAMS**

The College offers a number of special programs and services which were outlined earlier in this section of the catalog. Any type of technical, occupational, adult or general education program or course may be offered to meet specific community needs if it falls within the resources of the College. The community college is a local community service institution designed by and for the people it serves.

**OCCUPATIONAL EXTENSION CLASSES**

The occupational extension classes provided by the College cover a large number of occupational and industrial areas. They also include special subject-matter courses which are oriented toward certain occupational groups. Persons interested in the development of such courses should contact the College for further information.

**Apprenticeship Classes**

Oregon State law requires all registered apprentices to attend related instruction classes for 144 hours each year of their apprenticeship. The College operates these classes for the Southwestern Oregon area in cooperation with local apprenticeship committees. At the present time, classes are operated for carpenters, plumbers, inside wiring electricians, maintenance electricians and power linemen. Enrollment in these courses is restricted to registered apprentices.

**Business Classes**

Part-time extension classes in business are offered during day and evening hours. They are intended to upgrade the job skills and knowledge of persons employed in various business occupations. Courses in accounting, shorthand, typing, business data processing, business machines, small business records and management, and business law are available. Many other courses in the business field may be organized if there is a need for them.

**Distributive and Sales Classes**

Closely related to the business field is the area of sales and distribution so important to our economy. Classes for employed persons in marketing, advertising, salesmanship, merchandising and related topics are available.

**Home and Family Life Education**

Many homemakers, men and women, find it advantageous to take courses to assist them to better perform their roles as homemakers. Courses in this area include several in clothing selection and construction, foods and nutrition, home planning and decorating, home management, and family living including child care. Additional information regarding these classes may be obtained from the College.

**Industrial and Technical Education**

The variety of courses offered by the College in this area is limited only by the number of industrial and technical occupations in our many faceted industrial economy. Specific courses for many occupational groups and general courses covering skills and knowledge common to many occupations are possible. Electricity, electronics, mechanics, metalworking, welding, blueprint reading, drafting and applied mathematics are only a few of the possible areas included.

**Management and Supervisory Development**

The College offers two separate programs in this field. The first, Supervisory Training, is explained elsewhere in the catalog (see page 41). The College has also operated special classes for high school students
in the area served by the college district. Students from Marshfield, North Bend, Reedsport, Bandon, Powers, Coquille and Myrtle Point High Schools have attended special vocational classes during the past year. The College also operates some evening classes in the Coquille, Myrtle Point and Reedsport areas for persons who reside there.

It is intended for practicing supervisors in business and industry or for persons who aspire to those positions. The management development program is intended primarily for small business owners and managers. Some of the courses are operated in cooperation with the U.S. Small Business Administration, particularly the Small Business Management Seminar usually operated during the fall term. Other courses include small business management and small business records.

Public and Protective Services
The service occupations are the most rapidly growing segment of our occupational structure. Two programs in this field are provided by the College at the present time — Law Enforcement (see page 40) and a program in Fire Training offered in cooperation with fire departments in the area. Other public service courses, such as custodial training, are planned and operated by the College as the need for them arises.

GENERAL ADULT EDUCATION
The general adult education program of the College actually covers all areas of the curriculum. College transfer courses and other nontransfer adult courses are available in English and literature, the social and behavioral sciences, science and mathematics and the arts. During the past year, the College has expanded its offerings in art and music with considerable community interest and support. Adults may participate in the College orchestra, band and chorus as well as drawing, painting and ceramics courses.

Persons interested in course offerings in this program should contact the College for additional information.

CONTINUING EDUCATION PROGRAM
The College provides facilities to operate upper division and graduate level courses offered by the Division of Continuing Education, Oregon State System of Higher Education. Many of these courses are intended for teachers in the Southwestern Oregon area; however, other qualified persons may attend them. Persons interested in the continuing education program should contact the College for additional information.

ADULT BASIC EDUCATION
To provide for adults who have never had the opportunity to complete their elementary school education, the College offers classes in adult basic education. These classes are designed to promote in individuals the development and growth of the basic skills of reading, writing, English, expression, vocabulary, spelling, and arithmetic. The classes are conducted by using tutorial assistance, small group learning, self-learning, and machine learning. Some students use this training to prepare for the General Educational Development (G.E.D.) examination.

Additional information regarding these programs may be obtained from the College.
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### AVIATION

#### Professional Pilot

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INDUSTRIAL MECHANICS

Industrial Mechanics is a two-year course preparing students for automotive and metal-working fields. Students are prepared for entry-level jobs as service station attendants, mechanics, and welders; other employment opportunities (after on-the-job training) include metallurgical labor assistant, and apprenticeship in machinist trades, hydraulics, sheetmetal, and welding. Completion of the program leads to the Associate in Science degree.

Course work includes math, physics, internal combustion engines, mechanical systems, fuel systems, and welding.

### First Year

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<td>3.316 Power Trains</td>
<td></td>
<td>2</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Course</th>
<th>Hours</th>
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</thead>
<tbody>
<tr>
<td>3.324 Diagnostic Procedures</td>
<td>3</td>
</tr>
<tr>
<td>3.326 Automatic Transmissions</td>
<td>4</td>
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<tr>
<td>3.332 Service Management</td>
<td>2</td>
</tr>
<tr>
<td>Electives</td>
<td>3</td>
</tr>
<tr>
<td>1816</td>
<td>15</td>
</tr>
<tr>
<td>1516</td>
<td>15</td>
</tr>
</tbody>
</table>

TOTAL: 107 Units

ASSOCIATE IN SCIENCE IN BUSINESS

A two-year program designed for the student who desires to combine a basic business background with some related occupational competency. The student may choose from the several core options. He then may choose from a wide selection of business and nonbusiness courses.

Students will prepare themselves for any area for which they have special interest. Some examples are business operation of wood industries, industrial mechanics, and recreational industries.

Courses include basic core subjects such as language arts, mathematics, human relations, and accounting.

Requirements Are:

I. A minimum of 30 units of core subjects including one sequence.

<table>
<thead>
<tr>
<th>Sequence courses</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>Language Arts</td>
<td></td>
</tr>
<tr>
<td>Typing</td>
<td></td>
</tr>
<tr>
<td>Accounting</td>
<td></td>
</tr>
<tr>
<td>Social Studies</td>
<td></td>
</tr>
<tr>
<td>Data Processing</td>
<td></td>
</tr>
<tr>
<td>Office Procedures</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Nonsequence courses</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mathematics/Machines</td>
<td></td>
</tr>
<tr>
<td>Introduction to Business</td>
<td></td>
</tr>
</tbody>
</table>

II. At least 30 units in business related courses.

III. Ninety units including 18 units of general education.

IV. General requirements for Associate in Science Degree.
Technical-Vocational Programs

BOOKKEEPING - CLERICAL
Bookkeeping - Clerical is a one-year program designed to prepare persons for a variety of bookkeeping or clerical positions. A certificate of completion is offered when course requirements are met.

Course work prepares students for such positions as bookkeeping machine operator, file clerk, typist, records clerk, and bank clerk.

Course work includes typing, accounting, office procedures, and office machines.

First Year
1.111, 1.112, 1.113 Communications or Wr 111, 112, 113 English Composition 3 3 3
2.583, 2.584, 2.585 Office Procedures Typing according to placement 3 3 3
2.520, 2.522 Business Mathematics 3 3
2.566, 2.567 Accounting 4 4
2.519, 2.521 Office Machines I, II 2 2-3
1.121, 1.122 Man and Society 3 3
2.771 Payroll Accounting 3 3

TOTAL: 51-53 units/credits

1 See Typing - Shorthand Placement page.
2 Student may choose 2.521 or 6.900 Data Processing Fundamentals or BA 131 Intro to Business Data Processing.

BUSINESS TECHNOLOGY (Accounting Major)
Business Technology, with an accounting major, is a two-year program preparing students for business positions involving accounting. Completion of the program leads to the Associate in Science degree.

Course work includes office machines, accounting, business law, credit procedures, federal income tax, and introduction to data processing. Work experience is an option.

First Year
1.111, 1.112, 1.113 Communications or Wr 111, 112, 113 English Composition 3 3 3
2.766, 2.767, 2.768 Accounting or BA 211, 212, 213 Principles of Accounting 3-4 3-4 3-4
2.520, 2.522 Business Mathematics 3 3
2.583 Office Procedures 3
2.519, 2.521 Office Machines I, II 2 2
2.304 Fundamentals of Marketing 3
2.501 Typing I or SS 121 Typing 2
2.771 Payroll Accounting 3
6.900 Data Processing Fundamentals or BA 131 Intro to Business Data Processing 3

Second Year
2.320, 2.321, 2.322 Business Law 3 3 3
1.120, 1.121, 1.122 Man and Society 3 3 3
6.901 Intro to Digital computers 3
2.704 Business English 3
2.301 Credit Procedures 3
2.331 Federal Income Tax 3
2.769 Cost Accounting 3
BA 101 Intro to Business 4
Electives 3 4

TOTAL: 93-96 units/credits

1 Students may choose 2.583, or 2.584, or 2.585 Office Procedures.
2 Students may choose 2.521 or second term Typing.
3 Qualified students may take 2.503/SS 122 Typing—See Typing-Shorthand Placement page.

BUSINESS TECHNOLOGY (Distribution Major)
Business Technology, with a distribution major, is a two-year program preparing students for business positions involving distribution or marketing. Completion of the program leads to the Associate in Science degree. Students are prepared for entry positions in retailing, wholesaling, specialty selling, and midmanagement.
Course work includes office machines, accounting, marketing, salesmanship, advertising, business law, and credit procedures. Work experience is an option.

**First Year**

<table>
<thead>
<tr>
<th>Course</th>
<th>F</th>
<th>W</th>
<th>S</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.111, 1.112, 1.113 Communications or Wr 111, 112, 113 English Composition</td>
<td>3</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>1.120, 1.121, 1.122 Man and Society</td>
<td>3</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>2.250, 2.252 Business Mathematics</td>
<td>3</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>2.330 Fundamentals of Salesmanship</td>
<td>3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2.303 Office Procedures</td>
<td>3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2.304 Fundamentals of Marketing</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2.301 Credit Procedures</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2.305 Principles of Retailing</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2.307 Advertising</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2.519 Office Machines</td>
<td></td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>2.501 Typing</td>
<td>1</td>
<td>1</td>
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</tr>
<tr>
<td>Physical Education</td>
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<td>16</td>
<td>16</td>
</tr>
<tr>
<td>TOTAL:</td>
<td></td>
<td>96</td>
<td>credits</td>
</tr>
</tbody>
</table>

1 May be taken any term.

2 Required unless student has had typing—See Typing-Shorthand Placement page.

**BUSINESS TECHNOLOGY (Office Management Major)**

Business Technology, with an office management major, is a two-year program preparing students for office positions. Completion of the program leads to the Associate in Science degree.

Students are prepared for entry positions in offices; experience can lead to promotion as office managers.

Course work includes office machines, accounting, accounting, business law, credit procedures, and introduction to data processing. Work experience is an option.

**First Year**

<table>
<thead>
<tr>
<th>Course</th>
<th>F</th>
<th>W</th>
<th>S</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.111, 1.112, 1.113 Communications or Wr 111, 112, 113 English Composition</td>
<td>3</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>2.503, 2.504, 2.505 Office Procedures</td>
<td>3</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>2.766, 2.767, 2.768 Accounting or BA 211, 212, 213 Principles of Accounting</td>
<td>3</td>
<td>4</td>
<td>3</td>
</tr>
<tr>
<td>2.250, 2.252 Business Mathematics</td>
<td>3</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>2.501, 2.503 Typing I, II or SS 121, 122 Typing</td>
<td>2</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>2.518, 2.521 Office Machines</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6.900 Data Processing Fundamentals or Intro to Business Data Processing</td>
<td></td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>Physical Education</td>
<td></td>
<td>15</td>
<td>16</td>
</tr>
<tr>
<td>TOTAL:</td>
<td></td>
<td>94-97 units/credits</td>
<td></td>
</tr>
</tbody>
</table>

1 Qualified students may take 2.503 or SS 122—See Typing-Shorthand Placement page.

**DATA PROCESSING-COMPUTER TECHNOLOGY**

Data Processing-Computer Technology is a two-year program designed to prepare students for employment in the data processing field. Completion of the program leads to the Associate in Science degree.
Technical-Vocational Programs

Students are prepared for jobs as data processing operators and programmers in government and industry. Graduates may find initial employment as console operators, programmers, and junior systems analysts.

**First Year**

<table>
<thead>
<tr>
<th>Course</th>
<th>F</th>
<th>W</th>
<th>S</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.111, 1.112, 1.113 Communications or Wr 111, 112, 113 English Composition</td>
<td>3</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>2.766 Accounting or BA 211, 212, 213 Principles of Accounting</td>
<td>4</td>
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</tr>
<tr>
<td>2.771 Payroll Accounting</td>
<td></td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>4.202, 4.204 Mathematics or Mth 101, 102 College Algebra and Trigonometry</td>
<td>4</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6.900 Intro to Business Data Processing</td>
<td></td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>6.913 Intro to Electric Accounting Machines</td>
<td></td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>6.901 Intro to Digital Computers</td>
<td></td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>6.915 Math for Data Processing or Mth 200 Calculus</td>
<td></td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>6.903 Intro to Programming or Mth 233 Intro to Numerical Computation</td>
<td>3-4</td>
<td></td>
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</tr>
<tr>
<td>6.909 Computer Operations</td>
<td></td>
<td>14</td>
<td>17</td>
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</tbody>
</table>

**Second Year**

<table>
<thead>
<tr>
<th>Course</th>
<th>F</th>
<th>W</th>
<th>S</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.120, 1.121, 1.122 Man and Society or Social Science Alternate</td>
<td>3</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>2.769 Cost Accounting</td>
<td></td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>5.905 Intermediate Programming</td>
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<td>3</td>
<td></td>
</tr>
<tr>
<td>6.912 Business Statistics or BA 232 Business Statistics</td>
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<td>3</td>
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<tr>
<td>6.911 Computer Applications</td>
<td></td>
<td>4</td>
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<tr>
<td>6.902 Systems and Procedures I</td>
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<td>3</td>
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<tr>
<td>6.907 Advanced Programming</td>
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<td>3</td>
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<tr>
<td>6.904 Systems and Procedures II</td>
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<td>3</td>
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<tr>
<td>6.906 Data Processing Management</td>
<td></td>
<td>3</td>
<td></td>
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<tr>
<td>6.908 Special Problems in Data Processing Electives</td>
<td></td>
<td>3</td>
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<tr>
<td>TOTAL: 93-94 units/credits</td>
<td>15</td>
<td>16</td>
<td>14</td>
</tr>
</tbody>
</table>

**Electronics Engineering Technology**

Electronics Engineering Technology is a two-year program designed to prepare students for employment in the electronics field. Completion of the program leads to the Associate in Science degree.

Students are prepared for jobs as electrical and electronic technicians in research, manufacturing, and maintenance. The technicians can enter the consumer repair industry in television, radio, and electrical appliances and in electronic and communications equipment.

Courses include mathematics, physics, and general education as well as those with technical content in electricity and electronics.

**First Year**

<table>
<thead>
<tr>
<th>Course</th>
<th>F</th>
<th>W</th>
<th>S</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.111, 1.112, 1.113 Communications or Technical Mathematics</td>
<td>3</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>6.261, 6.262, 6.266 Technical Mathematics</td>
<td>4</td>
<td>4</td>
<td>4</td>
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<tr>
<td>6.370, 6.371 Applied Physics</td>
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<td>4</td>
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<tr>
<td>6.135, 6.136 Engineering Problems</td>
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<td>1</td>
<td></td>
</tr>
<tr>
<td>4.101, 4.103 Drafting, Electrical Drafting</td>
<td>2</td>
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<td>2</td>
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<tr>
<td>6.200, 6.202 Electrical Theory DC, AC</td>
<td>4</td>
<td>4</td>
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<tr>
<td>6.127 Practical Descriptive Geometry</td>
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<tr>
<td>6.204 Electrical Circuits</td>
<td></td>
<td>5</td>
<td></td>
</tr>
<tr>
<td>6.210 Vacuum Tube and Transistor Analysis</td>
<td></td>
<td>4</td>
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<tr>
<td>TOTAL: 104 units/credits</td>
<td>18</td>
<td>18</td>
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**Second Year**

<table>
<thead>
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<th>Course</th>
<th>F</th>
<th>W</th>
<th>S</th>
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</thead>
<tbody>
<tr>
<td>6.115 Electrical Mathematics</td>
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<tr>
<td>6.212 Oscillator Circuits and Design</td>
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<td>4</td>
<td></td>
</tr>
<tr>
<td>6.236 Servo Systems</td>
<td></td>
<td>2</td>
<td></td>
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<tr>
<td>6.234 Wave Generator and Shaping</td>
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<td>3</td>
<td></td>
</tr>
<tr>
<td>6.218, 6.246 Industrial Electronics</td>
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<td>3</td>
<td>4</td>
</tr>
<tr>
<td>6.228, 6.235 Industrial Television</td>
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<tr>
<td>6.214 Amplifier Circuits and Design</td>
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<td>5</td>
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<tr>
<td>6.240 Electronic Data Processing</td>
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<tr>
<td>6.216 Advanced Electronic Circuits</td>
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<tr>
<td>6.244 Automation Systems</td>
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<td>3</td>
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<tr>
<td>Electives</td>
<td>3</td>
<td>3</td>
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</tr>
<tr>
<td>TOTAL: 104 units/credits</td>
<td>16</td>
<td>17</td>
<td>17</td>
</tr>
</tbody>
</table>
Technical-Vocational Programs

INDUSTRIAL SUPERVISORY TRAINING

The Industrial Supervisory Training curriculum is designed for employed supervisors and others who wish to seek supervisory positions. Most of the courses are scheduled during nonworking hours. The courses required for completion of the program are equivalent to a full-time, two-year program but are extended over a period of years to meet the needs of fully employed persons.

Completion of the approved portions of the curriculum leads to a limited certificate of completion. By meeting additional requirements, one can earn a certificate; and by completion of all required work, an Associate in Science degree.

The program includes courses in human relations, organization and management, labor-management relations, and related electives.

Two evening courses are presently offered each term.

Industrial Supervisory Training Courses (9.500 - 9.524) are described elsewhere in the Catalog.

LAW ENFORCEMENT (Police Science)

Law enforcement is a two-year program designed for men and women seeking careers in law enforcement occupations. The curriculum was developed in cooperation with the State Advisory Board on Police Standards and Training. Completion of the program leads to the Associate in Science degree.

Students are prepared for entry positions in police departments, sheriffs' offices, and other law enforcement agencies. The program also provides opportunities for persons already employed in law enforcement to gain further training which will help them qualify for promotions.

Course work includes study of report writing, public speaking, psychology of human relations, criminal investigation, and defensive tactics.

First Year

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>F</th>
<th>W</th>
<th>S</th>
</tr>
</thead>
<tbody>
<tr>
<td>5.212, 5.213, 5.214</td>
<td>First Aid</td>
<td>1</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>5.204, 5.206</td>
<td>Defensive Tactics</td>
<td>1</td>
<td>1</td>
<td></td>
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<tr>
<td>1.111, 1.112</td>
<td>Communications</td>
<td>3</td>
<td>3</td>
<td></td>
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<tr>
<td>2.501, 2.503</td>
<td>Typing</td>
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<td></td>
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<tr>
<td>5.200</td>
<td>Introduction to Law Enforcement</td>
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<td>2</td>
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<tr>
<td>5.202</td>
<td>Administration of Justice</td>
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<tr>
<td>5.208</td>
<td>Criminal Law</td>
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<td>1.605</td>
<td>Health Education</td>
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<tr>
<td>5.211</td>
<td>Traffic Control</td>
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<td></td>
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<tr>
<td>5.240</td>
<td>Report Writing</td>
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<td></td>
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<tr>
<td>1.606</td>
<td>Introduction to Psychology</td>
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<tr>
<td>Electives</td>
<td></td>
<td>16</td>
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<td>16</td>
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</table>

Second Year

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>F</th>
<th>W</th>
<th>S</th>
</tr>
</thead>
<tbody>
<tr>
<td>5.216, 5.217, 5.218</td>
<td>Criminal Investigation</td>
<td>3</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>5.234, 5.241, 5.242</td>
<td>Problems of Physical Evidence</td>
<td>1</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>5.226, 5.227, 5.228</td>
<td>Firearms</td>
<td>1</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>5.220</td>
<td>Patrol Procedures</td>
<td>3</td>
<td></td>
<td></td>
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<tr>
<td>1.610</td>
<td>Public Speaking</td>
<td>2</td>
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<tr>
<td>5.222</td>
<td>Criminal Evidence</td>
<td>3</td>
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<tr>
<td>5.230, 5.231</td>
<td>Field Work</td>
<td>1</td>
<td>1</td>
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<tr>
<td>5.236</td>
<td>Juvenile Procedures</td>
<td>3</td>
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<tr>
<td>1.600</td>
<td>American Institutions</td>
<td>3</td>
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<tr>
<td>5.238</td>
<td>Criminal Law</td>
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<td></td>
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</tr>
<tr>
<td>5.232</td>
<td>Jail Procedures</td>
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<tr>
<td>1.608</td>
<td>Psychology of Human Relations</td>
<td>3</td>
<td>3</td>
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</tr>
<tr>
<td>Electives</td>
<td></td>
<td>16</td>
<td>15</td>
<td>16</td>
</tr>
</tbody>
</table>

TOTAL: 92 units

1 See Typing-Shorthand Placement page.

PRACTICAL NURSING

The practical nursing program trains women and men in the skills of bedside nursing, to be carried out under the supervision of professional nurses and/or physicians. Graduates are eligible to receive a certificate of completion and to take the examination for licensing as a practical nurse in Oregon.

Jobs can be obtained as staff nurses in hospitals, nursing homes, state institutions, and private homes, as office nurses, in industrial nursing, in public health services or as surgical or other types of technicians.
Technical-Vocational Programs

Course work includes a study of normal health, growth and development, nursing care in conditions of illness, and clinical practice.

Tuition is $90.00 per quarter or $270.00 for the 48-week course. Fifty dollars of the tuition is due upon acceptance of the application, with the balance due at the time of registration. The $50.00 is not refundable though it applies to the tuition when the student registers. Students who reside outside the Coos Bay or North Bend school district boundaries but in the Southwestern Oregon Area Education District receive a 25% reduction. Myrtle Point students 50%, and Powers students 100% offset.

In addition to tuition costs, practical nursing students must have uniforms (approximately $20.00) and textbooks (approximately $35.00). White shoes and stockings, bandage scissors, and a watch with a second hand are required.

The first eight weeks of the course are spent in the classroom six hours a day, five days a week. The next four weeks, part of the time is spent becoming acquainted with hospital routine. After twelve weeks, students begin their assigned clinical practice in various hospital departments. During this time, students will spend one day a week in class.

During the clinical practice period in the hospital, students will be assigned duties by the college instructor and their schedules will be similar to that of the regular nursing employees (Saturdays and Sundays are not automatically days off). A total of 516 clock hours are spent in class and 1232 clock hours are spent in clinical practice.

To be admitted as a practical nursing student, it is necessary to:

1. file an application by April 15, about four months before the start of the program.
2. have high school transcripts sent to the college.
3. complete the college placement examinations.
4. be at least 18 and no more than 50 years of age.
5. have a physical examination including chest x-ray and necessary immunizations.
6. have a personal interview with the Practical Nursing Instructor and Dean of Student Services.

SECRETARIAL STENOGRAPHY PROGRAM

Secretarial Technology is a two-year program designed to prepare students for entry jobs leading to a variety of secretarial positions. Completion of the program leads to the Associate in Science degree.

Through specialization and experience, students can qualify for legal, medical, technical, and executive or private secretarial positions.

Basic courses include shorthand, typing, business math, and secretarial practice. Optional courses are available in business law, accounting, credit procedures, and medical technology. After one year, work experience is frequently available in local businesses.

First Year

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Description</th>
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Second Year

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Technical-Vocational Programs

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<td><strong>TOTAL:</strong> 100 units/credits</td>
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1. See Typing-Shorthand Placement page.
2. SS 211, 212, 213 will not be offered after 1970-71.

**STENOGRAPHY**

Stenography is a one-year program designed to prepare persons for positions as stenographers. A certificate is offered when course requirements are met.

Students are prepared to take and transcribe dictation in jobs requiring ordinary skills and speed. Many types of clerical positions that include a need for shorthand in addition to allied duties are open to graduates. A stenographer can, by experience and additional training, advance to the more demanding position of secretary.

Course work includes Gregg shorthand, typing, office procedures, and office machines.

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<thead>
<tr>
<th>First Year</th>
<th>F</th>
<th>W</th>
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<td>Psy of Human Relations or Fundamentals of Speech Sp 111</td>
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<td><strong>TOTAL:</strong> 98 units/credits</td>
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**WOOD INDUSTRIES TECHNOLOGY**

Wood Industries Technology is a two-year program in which training in technical forestry is given in preparation for careers in government and industrial forestry. Completion of the program leads to the Associate in Science degree.

Students are prepared for entry occupations as forestry technician, scaler trainee, etc. These jobs can lead to supervisory and administrative positions.

Course work includes training in cruising, scaling, surveying, aerial photogrammetry, and logging methods.

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<th>First Year</th>
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<td><strong>TOTAL:</strong> 44 units</td>
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Technical-Vocational and Adult Course Descriptions
0.100 Adult Driver Training (2 Class Hrs/Wk) Term Units 2
This is a course offered to adults who wish to learn to drive. The course includes Oregon vehicle law, operating, principles of the car, preventive maintenance, as well as financial factors which include financial responsibility and insurance. Both classroom instruction on driving procedures and driving practice in a dual-controlled automobile will be included.

0.120 Basic Photography (1 Class, 2 Lab Hrs/Wk) Term Units 2
This course is an introduction to the basic principles of photography, including indoctrination camera use, composition, darkroom developing and printing, and general assignment photographic work.

0.195 Painting (3 Lab Hrs/Wk) Term Unit 1
This course is designed for artists who wish to develop skills in painting. It includes a study of color theory, techniques, and materials. The course is divided into three parts: basics of oil painting, watercolor painting, and acrylic painting. The course requires previous experience in art or photography.

0.196 Band (2 Lab Hrs/Wk) Term Unit 1
This course is offered to musicians in the community and at the college who wish an outlet for their talents and to improve their performing ability. Course work includes a study of breath control, instrument techniques, and musical reading. The course also introduces the use of different music notation and other music literature.

0.197 Chorus (2 Lab Hrs/Wk) Term Unit 1
This course is offered to students in the community and at the college who wish an outlet for their talents and to improve their performing ability. Course work includes a study of breath control, vocal placement, and proper use; music reading, notation and terminology; and musical literature of all periods, styles, and cultures.

0.500 Mathematics Workshop (5 Class Hrs/Wk) Term Units 0
A course designed for students whose knowledge of basic arithmetic or intermediate algebra is deficient. The purpose of this course is to prepare students for successful completion of their science sequence or any other program requiring knowledge of basic mathematics.

0.501 Communications Workshop (2 Class Hrs/Wk) Term Units 0
A required course taken 2 hours each week in conjunction with Communications 1, 111, 1, 112, 1, 113. This course is designed to help students increase their skills in relation to their reading speed and comprehension. Additional work is offered in the areas of writing, vocabulary development, and public speaking.

0.510 Elements of Algebra Term Units 2
Stresses the transition from arithmetic to algebra for students with little or no previous experience in algebra. Includes the concepts of numbers, natural numbers, integers, rational numbers, etc., their generalization and simple algebraic procedures.

0.515 Intermediate Algebra I (4 Class Hrs/Wk) Term Units 2
Two units of Intermediate Algebra including properties of real numbers, fractions, exponents, roots, radicals, and first and second degree equations and inequalities. Prerequisite: Elements of Algebra 0.510.

0.540 Drawing I (3 Lab Hrs/Wk) Term Unit 1
This course in beginning drawing serves as an introduction to the various approaches to drawing. The investigation of a variety of media, methods, techniques and compositional devices is employed to enable the student to gain as wide a knowledge of drawing as possible.

0.541 Drawing II (3 Lab Hrs/Wk) Term Unit 1
The second in the sequence of Drawing courses aims to provide the student with a basic knowledge and insight within the area of figure analysis and introductory anatomy.

0.542 Drawing III (3 Lab Hrs/Wk) Term Unit 1
This, the last course of the three-term sequence, is designed to develop within the individual an awareness and knowledge of landscape drawing and composition.

0.543 Watercolor Painting I (3 Lab Hrs/Wk) Term Unit 1
The first course of a three-term sequence. It is primarily designed as an investigation of the medium and the approaches possible with transparent watercolor.

0.544 Watercolor Painting II (3 Lab Hrs/Wk) Term Unit 1
The second course of the sequence in watercolor continues the investigation of the medium through the use of creative exercises and the investigative method of problem solving.

0.545 Watercolor Painting III (3 Lab Hrs/Wk) Term Unit 1
The last course in the sequence in watercolor painting is designed to develop within the individual a keen awareness of the particular qualities of this medium as compared to the other media of painting.

0.546 Oil Painting I (3 Lab Hrs/Wk) Term Unit 1
This course is the first of a three-term sequence designed to acquaint the student with the medium of oil paint and the methods and techniques necessary for establishing a basic knowledge of oil painting.

0.547 Oil Painting II (3 Lab Hrs/Wk) Term Unit 1
The second course of the three-term sequence continues the investigation of problems in painting related to color, methods, techniques, and composition.

0.548 Oil Painting III (3 Lab Hrs/Wk) Term Unit 1
The third course of the sequence in oil painting is designed to further the investigations of the two previous terms and to introduce mural design and composition together with landscape painting.

0.549 Experimental Painting (3 Lab Hrs/Wk) Term Unit 1
A single term course in advanced painting, accenting the use and investigation of experimental materials, including glues, plastic paints (acrylic and vinyl types) and collage. Prerequisites: 0.540 through 0.548 or consent of the instructor.

0.550 Ceramics I (3 Lab Hrs/Wk) Term Unit 1
The first term of a three-term sequence, this course is an introduction and investigation to the medium of its plastic properties.

0.551 Ceramics II (3 Lab Hrs/Wk) Term Unit 2
The second term of the sequence in ceramics introduces the throwing process and its creative possibilities for the potters.
Technical-Vocational and Adult Course Descriptions

0.552 Ceramics III (3 Lab Hrs/Wk)
Term Unit 1
The third ceramic term consists of a further development of individual and traditional historic pottery as a background for research.

0.553 Elementary Sculpture I (3 Lab Hrs/Wk)
Term Unit 1
This course is designed as an introduction to the materials, methods and techniques of sculpture. Primary considerations of form, together with experimentation, familiarization and compositional structuring in all of the basic sculpture media, are the aims of this course.

0.554 Elementary Sculpture II (3 Lab Hrs/Wk)
Term Unit 1
The second course in the sculpture sequence emphasizes the problems and approaches of the carving of subtractive method of sculpturing.

0.555 Elementary Sculpture III (3 Lab Hrs/Wk)
Term Unit 1
The third term in this sequence introduces the student to more advanced creative design in sculpture as well as offering the opportunity for experiments in new media and techniques.

0.564 Introduction to Commercial Art (3 Lab Hrs/Wk)
Term Unit 1
The first course of a three-term sequence designed to introduce the student to methods and techniques in layout, lettering, and commercial art as a field.

0.600 Conversational Spanish (2½ Class Hrs/Wk)
Term Unit 1
An introduction to conversational Spanish. The course provides opportunities for practical conversation on everyday topics, current events, and cultural material.

0.601 Conversational Spanish (2½ Class Hrs/Wk)
Term Unit 1
An intermediate course - continuation of Conversational Spanish 0.600.

0.602 Conversational Spanish (2½ Class Hrs/Wk)
Term Unit 1
An advanced course - continuation of Conversational Spanish 0.601.

0.653 Vocal Techniques Workshop (5 Lab Hrs/Wk)
Term Unit 1
The course consists of methods to improve one's singing voice. The study involves the basic principles of breathing and vocal production, as well as the application of these principles to singing and to song literature.

0.654 Fundamental Music Workshop (3 Class Hrs/Wk)
Term Units 1
A creative approach to music learning for those with little previous formal training in music. The student's learning experiences in language, art, science, arithmetic and social studies will be utilized to lead into the musical experiences of singing, playing, listening, or moving to music.

0.655 Band (2 Lab Hrs/Wk)
Term Units 1
The course consists of a study of breath control; instrument techniques and skills; music reading, notation and terminology; and musical literature of all styles, periods and cultures.

0.656 Orchestra (2 Lab Hrs/Wk)
Term Units 1
The course consists of a study of tone control; instrument techniques and skills; music reading, notation and terminology; and musical literature of all periods, styles, and cultures.

0.657 Chorus (2 Lab Hrs/Wk)
Term Units 1
The course consists of a study of breath control; voice placement and proper use; music reading, notation and terminology; and choral literature of all periods, styles and cultures.

0.659 Introduction to Guitar I (1 Lab Hr/Wk)
Term Units 1
The course consists of an advanced study of (1) instrumental techniques and skills, reading, (3) chord theory and chord application, (4) and an introduction to the serious literature for guitar.

0.660 Introduction to Guitar II (1 Lab Hr/Wk)
Term Units 1
The course consists of an advanced study of (1) instrumental techniques and skills, (2) music reading, (3) chord theory and chord application, (4) and an introduction to the serious literature for guitar.

0.700 Aviation Orientation (2½ Class Hrs/Wk)
Term Units 0
A six-weeks course especially planned to acquaint wives, husbands and parents of pilots with the principles of flight, air navigation, meteorology and Federal air regulations.

0.920 Basic Clothing Construction (3 Hrs/Wk)
Term Units 1
This course is designed for homemakers who wish to learn the basic techniques of sewing and for those who are interested in improving and learning new methods. The course covers fabric selection, simple pattern alteration, selection and use of equipment pressing techniques, as well as the basic techniques of clothing construction needed to enter the more advanced classes. Projects include apron, blouse, skirt and dress.

0.921 Advanced Dressmaking (3 Hrs/Wk)
Term Units 1
New methods of construction of garments from new chemical fabrics with emphasis on creative details; emphasis on principles of clothing selection and pattern and fabric coordination. Use of interfacing, linings and underlinings will be studied.

0.922 Basic Fitting and Shirtmaking (3 Hrs/Wk)
Term Units 1
This course covers techniques for making a basic dress from pattern for use as a fitting shell. These garments are then used as a guide in drafting a basic pattern of pelton, which is then used as a guide for making perfectly fitted clothes and used as a base for creating original designs. Construction of a man's wool shirt or jacket is also included in the course. Prerequisite 9.920.

0.923 Sportswear and Children's Clothing (3 Hrs/Wk)
Term Units 1
This course is designed for homemakers who wish to increase their general sewing skill and gain more experience and confidence in their sewing abilities before going on to the more advanced courses. Construction of children's sleepwear, girls' dresses, garments of nap fabric, boys' slacks, various neckline and sleeve finishes for children's garments are covered in this course.

0.924 Tailoring a Coat (3 Hrs/Wk)
Term Units 1
This course is designed to give students better knowledge of tailoring techniques, experience in working with heavier wool fabrics and lining materials. Instruction in specific coatmaking techniques are included. Some of the items covered are: interfacing a cut-on facing, lining a garment with rogian sleeves, making and applying a notched collar, slot or modified welt pocket and tailored buttonhole. Prerequisite: 9.920 and 9.922.
Technical-Vocational and Adult Course Descriptions

0.925 Tailoring a Suit (3 Hrs/Wk) Term Units 1
This advanced course in tailoring presents the techniques used in making a suit. Included is a more advanced method for setting in sleeves, separate front facing, cuffs, shoulder shapes, linings and walking pleats.

0.926 Clothing Selection and Construction Term Units 1
A course covering the principles of clothing selection, with emphasis on fabric, design, style, and color as related to the individual. Instruction in beginning construction is also included.

0.927 Wardrobe Accessories (3 Hrs/Wk) Term Units 2
This course features clothing selection principles and emphasizes selection of accessories to enhance the individual and her wardrobe. Selection and use of wardrobe items including accessories for many different occasions will be studied.

0.928 Pattern Drafting (2½ Hrs/Wk) Term Units 2
This course is designed for the individual who is interested in learning flat pattern drafting techniques which will be useful in altering commercial patterns, drafting new patterns and restyling patterns and apparel terms.

0.929 Special Fabrics Workshop (3 Hrs/Wk) Term Units 1
A specially designed short course to give homemakers, fabric selectors, and others the latest techniques for handling knits and stretch fabrics. Sewing techniques for making knit shells, sweaters, knit suits, swimwear and sportswear are included.

0.931 Advanced Pattern Drafting (2½ Hrs/Wk) Term Units 2
The course will cover pattern drafting techniques used in altering commercial patterns and altering and restyling apparel items as well as methods for creating original styles. Will include advanced steps in creating sleeves, necklines, collars, and skirts. Emphasis will be on techniques for developing original designs. Pre-requisite: Flat Pattern Drafting.

0.932 Advanced Sewing with Knits (2½ Hrs/Wk) Term Units 2
This course is designed for individuals who wish to learn more about the characteristics to consider when selecting knit fabrics, and the construction techniques most effective when knit fabrics are used in making tailored type suits, and various types of sportswear.

0.941 Family Finance and Resource Management (3 Hrs/Wk) (4 Wks) Term Units 1
A study of new ideas for family money management, including use of credit, income tax procedures, teaching children how to manage money, and study of consumer buying ability. Attitudes, values and decision making ability will be emphasized.

0.942 Home Furnishing and Decorating (3 Hrs/Wk) Term Units 1
This course covers the fundamentals of home furnishing and decorating, including the use of design, color, texture, space and form. The selection and use of floor coverings, window treatments, wall finishes, furniture, lighting, and accessories are all studied so the homemaker can evaluate and improve her own home in terms of comfort, convenience, beauty, and suitability to the individual needs.

0.943 Home Management for Students with Special Needs (2 Hrs/Wk) Term Units 2
This course in general home management designed for the student with special needs. The course covers management of time, energy, money and other family resources. Explores the decision-making process and includes specific techniques for increasing management skills in the areas of clothing, food, housing and family health. Cost-cutting techniques are emphasized in each area.

0.944 Home Maintenance and Repair Term Units 2
The course is designed to help the student develop a greater awareness of the importance of home maintenance and repair and develop an understanding of some of the basic principles of home maintenance including use of selected tools, selection of materials and techniques used in maintaining and repairing windows, floors, steps, roofs, storage areas, bathrooms and kitchens.

0.945 Consumer Education for Students with Special Needs (3 Hrs/Wk) Term Units 2
This course is designed for members of low-income households and emphasizes a practical approach to the consumer problems of low-income families including housing, food purchasing, budgeting family resources, planning expenditures, comparison shopping techniques, use of credit, clothing expenditures.

0.947 Home Decorating with Window Treatments (2½ Hrs/Wk) Term Units 2
Study of the use of design, color, texture, space and form in decorating the home will be covered. Special emphasis on window treatments will include the techniques for constructing lined and unlined draw draperies. Laboratory work will be included.

0.970 Meal Preparation for the Family (3 Hrs/Wk) Term Units 3
This course covers creative meal preparation for the modern family with lessons on effective food buying, meal planning, time-saving food preparation, special diet needs and some specialty and holiday cookery.

0.960 Family Life: Relationships I (2 Hrs/Wk) Term Units 2
(Personal Development)
A course planned to help the student develop a greater understanding of the importance of efficient personal management, optimal health and nutrition, and quality personal appearance in the development of the individual. Individual development in relation to wage earning will be emphasized.

0.962 Marriage and the Family (3 Hrs/Wk) Term Units 2
Exploration of the social-cultural forces influencing family life, the personal development desirable for marriage, the masculine-feminine roles in marriage and family life, patterns of family living and preparation for parenthood.

0.968 Understanding the Preschool Child Workshop (2 Hrs/Wk, 6 Wks) Term Units 1
An introduction to the factors affecting the child's physical, emotional and intellectual development. Provides parents of preschool children an opportunity to examine their own role in relation to the child. Includes study of factors which influence development of self-discipline, responsibility, initiative and imagination.
Technical-Vocational and Adult Course Descriptions

0.972 Creative Cookery (2½ Hrs/Wk)
Term Units 1
This course includes basic food preparation techniques used in preparation of meals for the family. Meal planning, practical nutrition, food buying and creative ways to use ordinary ingredients in family meal preparation are included. Lectures, demonstrations and laboratory.

1.111 Communications (3 Class, 2 Lab Hrs/Wk)
Term Units 3
A course stressing the importance of communications activities. Emphasis is given to improving the student's ability to write, speak, read and listen effectively. (Students are required to schedule two hours each week in the Study Center.) Students who register for this class must also register for 0.501 Communications Workshop (2 class hrs/wk), which consists of additional work in reading, spelling, writing and vocabulary development. Satisfactory reading test scores may exempt students from this required workshop.

1.112 Communications (3 Class, 2 Lab Hrs/Wk)
Term Units 3
This course is a continuation of Communications 1.111. (Students are required to schedule two hours each week in the Study Center). Students who register for this class must also register for 0.501 Communications Workshop (2 class hrs/wk), which consists of additional work in reading, spelling, writing and vocabulary development. Satisfactory reading test scores may exempt students from this required workshop.

1.113 Communications (3 Class, 2 Lab Hrs/Wk)
Term Units 3
This course is a continuation of Communications 1.112. (Students are required to schedule two hours each week in the Study Center). Students who register for this class must also register for 0.501 Communications Workshop (2 class hrs/wk), which consists of additional work in reading, spelling, writing and vocabulary development. Satisfactory reading test scores may exempt students from this required workshop.

1.120, 1.121, 1.122 Man and Society (3 Class Hrs/Wk)
Term Units 3
This course traces the development of the union in the United States. Attention is given to the roles of labor and management in collective bargaining. A review of labor-management relations is correlated with the development of unionism. Labor organization, grievance, arbitration, and consultation problems of labor are also studied.

1.127 Writing for Publication
Term Units 3
A study of current opportunities and requirements in various markets applicable to the free lance writer, along with criticism and advice in regard to the writer's work, and training toward the development of useful critical standards.

1.130, 1.131, 1.132 Appreciation of Literature (3 Class Hrs/Wk)
Term Units 2
This course covers the short story and novel in the first quarter, drama in the second quarter, and poetry in the third quarter. In each quarter, the material covers the organization of the particular medium in terms of the conventions and characteristics peculiar to it. The remainder of each quarter will, through reading and discussion, relate the whole to the constituent parts. At the conclusion of the three quarters the relationship among the three media will be seen.

1.133, 1.134, 1.135 Appreciation of Shakespeare I, II, III
Term Units 3
Careful and complete study of selected Shakespearean tragedies, comedies, and histories. Designed to fit into the programs of the Oregon Shakespearean Festival in Ashland.

1.136 Introduction to Theatre (3 Class Hrs/Wk)
Term Units 3
A survey course covering the development of the theatre from classical Greek to contemporary practices and plays. Fall term: Sophocles to Shakespeare; Winter term: Shakespeare to Ibsen; Spring term: Shaw to Ionesco. The course will follow a chronological sequence, but the emphasis will be on showing the relationship between form and styles of dramatic literature; will be tied into the changes in architecture, production methods—acting, directing, staging, etc., and their effects on the social/cultural atmosphere and conditions of their particular time.

1.404 Career Development and College Success
Term Units 3
This course provides an opportunity to explore ability, interest, attitude, and personality factors involved in setting personal life goals and making educational and career decisions.

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 provided 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 logical and conflict analysis, problems involved in determining their psychological basis.

2.250, 2.252 Business Mathematics (3 Class Hrs/Wk)
Term Units 3
A two-semester course. 2.250. A concentrated class of programmed learning, reviewing fundamental processes for solving equations, including special use of the calculator. Uses of algebraic equations to solve business problems. 2.252. Interest, discount, negotiable instruments, payroll mathematics, cash and trade discount, computing earnings and deductions.

2.256, 2.262, 2.263 Work Experience (10-20 Hrs/Wk)
Term Units 4
General approved and supervised paid work experience in conjunction with major field of study. The student works from 10 to 20 hours a week on an on-the-job training program for 400 hours or 200 hours a term. Credit varies from 2-4 units. A maximum of 2 units is allowed towards an A.S. degree. Related instruction (2.264, 2.265 or 2.266) must be taken concurrently.

2.264, 2.265, 2.266 Related Instruction (1 Class, 4 Lab Hrs/Wk)
Term Units 2
Each student enrolled in Work Experience (2.256, 2.262 or 2.263) must also enroll in this course. A selection of activities related to work experience activities and the environment.

2.290 Advertising Art I (3 Lab Hrs/Wk)
Term Units 3
The first basic introduction to commercial art . . . its scope, varied fields, and production processes.

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<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Term/Units</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>2.301</td>
<td>Credit Procedures (3 Class Hrs/Wk)</td>
<td>Term Units</td>
<td>3</td>
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<tr>
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<td>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.</td>
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<tr>
<td>2.304</td>
<td>Fundamentals of Marketing (3 Class Hrs/Wk)</td>
<td>Term Units</td>
<td>3</td>
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<td>A general survey of the nature, significance, and scope of marketing. Emphasis is placed upon the channels of distribution; the marketing of consumer, shopping, specialty, and other goods; service marketing; middlemen, wholesaling, shopping and warehousing; standardization, grading, and pricing; government regulation of competition.</td>
</tr>
<tr>
<td>2.305</td>
<td>Principles of Retailing (3 Class Hrs/Wk)</td>
<td>Term Units</td>
<td>3</td>
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<td></td>
<td>A general survey of the principles of efficient store organization and management. Topics include location and layout, types of store organization, personnel, and operating activities, financial and budgetary control, coordinating policies, and store protection.</td>
</tr>
<tr>
<td>2.307</td>
<td>Advertising (3 Class Hrs/Wk)</td>
<td>Term Units</td>
<td>3</td>
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<td>An introduction 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.</td>
</tr>
<tr>
<td>2.320</td>
<td>Business Law (3 Class Hrs/Wk)</td>
<td>Term Units</td>
<td>3</td>
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<td>An introduction to business law. Emphasis is on contractual relationships, the law of sales, bailements, and negotiable instruments. Cases are used to illustrate the principles involved.</td>
</tr>
<tr>
<td>2.321</td>
<td>Business Law (3 Class Hrs/Wk)</td>
<td>Term Units</td>
<td>3</td>
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<td>A continuation of 2.320 with emphasis on agency and employment, union labor contracts, personal property, real property, suretyship and guaranty. Prerequisite: 2.320 or consent of instructor.</td>
</tr>
<tr>
<td>2.322</td>
<td>Business Law (3 Class Hrs/Wk)</td>
<td>Term Units</td>
<td>3</td>
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<td>A continuation of 2.321 with emphasis on risk-bearing devices, partnerships and corporations, bankruptcy, and current social legislation. Prerequisite: One term of Business Law, 2.320 or 2.321, or consent of instructor.</td>
</tr>
<tr>
<td>2.330</td>
<td>Fundamentals of Salesmanship (3 Class Hrs/Wk)</td>
<td>Term Units</td>
<td>3</td>
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<td>An analysis and evaluation at 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.</td>
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<tr>
<td>2.331</td>
<td>Federal Income Tax (3 Class Hrs/Wk)</td>
<td>Term Units</td>
<td>3</td>
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<td>A study of income tax law and the record-keeping necessary for income tax purposes.</td>
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<tr>
<td>2.340</td>
<td>Consumer Economics (3 Class Hrs/Wk)</td>
<td>Term Units</td>
<td>3</td>
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<td>Considers the basic principles underlying the nature of consumer credit, savings institutions, insurance and annuities, real estate, income taxes, investment outlets, and estate planning. Case study method is emphasized.</td>
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<tr>
<td>2.380</td>
<td>Principles of Finance (3 Class Hrs/Wk)</td>
<td>Term Units</td>
<td>3</td>
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<td>A study of the function of capital in the economy and the business enterprise. Basic institutions contributing to the creation and flow of capital and basic instruments and their use.</td>
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<tr>
<td>2.400</td>
<td>Real Estate Principles I (3 Class Hrs/Wk)</td>
<td>Term Units</td>
<td>3</td>
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<td>A fundamental course to prepare for entry into the real estate industry. Includes economic, social, and legal bases of real estate transactions, factors of property rights, taxation, real estate instruments, finance, and property ownership. Prerequisite: None.</td>
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<tr>
<td>2.401</td>
<td>Real Estate Principles II (3 Class Hrs/Wk)</td>
<td>Term Units</td>
<td>3</td>
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<td>A continuation of Real Estate Principles I to further prepare for entry into the real estate industry. Includes a basic approach to brokerage and licensing as applied to the State of Oregon covering operating an office, selling, and advertising. Introduces student to accepted standards of ethical conduct, property management, titles, valuation, planning, zoning, urban renewal, public housing and developments. Prerequisite: Real Estate Principles I.</td>
</tr>
<tr>
<td>2.402</td>
<td>Real Estate Law (3 Class Hrs/Wk)</td>
<td>Term Units</td>
<td>3</td>
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<td>A practical study of Oregon Real Estate Law emphasizing the more complex aspects of ownership, use and transferability of real estate as encountered by brokers and others who deal with real property. Covers contracts, title, deeds, leases, liens, covenants, conditions, restrictions, easements, estates, probate, and landlord-tenant relationships. Includes a review of significant Oregon cases. Prerequisite: Real Estate Principles I and II. May be taken concurrently with Real Estate Principles II.</td>
</tr>
<tr>
<td>2.403</td>
<td>Real Estate Exam Review (3 Class Hrs/Wk)</td>
<td>Term Units</td>
<td>3</td>
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<td>Comprehensive review of real estate principles and law with particular emphasis on math problems, earnest money agreement, listing agreement, and closing statement. Specific preparation for taking and passing Oregon state broker's and salesmen's license examination.</td>
</tr>
<tr>
<td>2.501, 2.503, 2.505</td>
<td>Typing (1 Class, 4 Lab Hrs/Wk)</td>
<td>Term Units</td>
<td>3</td>
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<tr>
<td>2.501</td>
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<td>2.501 - Introduction to (1) keyboard (2) simple production. Knowledge of mechanical operation of machine.</td>
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<tr>
<td>2.503</td>
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<td>2.503 - Speed and accuracy building - review of simple production. Prerequisite Knowledge of keyboard.</td>
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<tr>
<td>2.505</td>
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<td>2.505 - Number speed-and-accuracy building. Advanced production: Business correspondence, tabulations, manuscripts. Prerequisite: Completion of 2.503.</td>
</tr>
<tr>
<td>2.507</td>
<td>Typing (1 Class, 4 Lab Hrs/Wk)</td>
<td>Term Units</td>
<td>3</td>
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<td>The student is provided with sustained practice in long-range assignments 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.</td>
</tr>
<tr>
<td>2.519</td>
<td>Office Machines I (1 Lecture, 3 Lab Hrs/Wk)</td>
<td>Term Units</td>
<td>3</td>
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<td>An introduction to the operation of the following machines: 10-key adding machines, rotary calculator, printing calculator, key punch and accounting machines, including an introduction to simple problems of application and decision making.</td>
</tr>
</tbody>
</table>
2.521 Office Machines II (1 Lecture, 3 Lab Hrs/Wk) Term Units 2
A continuation of 2.521 involving the skills acquired in 2.519 to problems in percentage, interest and discounts. Attention will be given to problem-solving procedures.

2.541, 2.543, 2.545 Shorthand (2 Class, 3 Lab Hrs/Wk) Term Units 3
Theory of Gregg Shorthand; practical applications in sentence and paragraph dictation. 2.501, 2.503, and 2.505 must be taken consecutively unless the student has had the equivalent. Students with one year of high school shorthand will be placed on the advice of the instructor.

2.583, 2.584, 2.585 Office Procedures (2 Class, 3 Lab Hrs./Wk) Term Units 3
A sequence of courses to present the knowledge of office practices and equipment, together with a full year of personal management. 2.583 - Business Psychology. 2.584 - Organization of work, office supplies, reference sources, postal procedures, telephone techniques, receptionist duties. 2.585 - Alphabetical, geographic, numerical filing; duplicating processes including mimeograph, photostat and coping machines.

2.590, 2.591, 2.592 Secretarial Practice (2 Class, 3 Lab Hrs/Wk) Term Units 3
A three-term sequence of practical application of shorthand dictation, transcription, and decision-making judgments demanded of secretarial employees. The student is introduced to the role and responsibilities of the secretary in a simulated office setting. Prerequisite: 2.501 or 2.505 and 2.519 or 2.545 or consent of instructor.

2.600 Transportation I (3 Class Hrs/Wk) Term Units 3
Introduction to transportation, transportation in our economy, the transportation system and on-line development, development and regulation of transportation, theory of rate making and government controls, selected carrier problems and transportation policies.

2.766, 2.767, 2.768 Accounting (3 Class, 2 Lab Hrs/Wk) Term Units 4
A two or three-term sequence. 2.766 is a comprehensive study of the recording and reporting phases of accounting and bookkeeping for a single proprietorship business. Prerequisite: Little or no bookkeeping or accounting experience.

2.767 is a comprehensive study of payroll, partnership, cash, and negotiable instrument accounting. A practice set requiring extensive record keeping and reporting of accounting data is required. Prerequisite: 2.766 or consent of instructor.

2.768 is a comprehensive study of the recording and problem solving phases of accounting so the student can meet and analyze increasingly difficult accounting procedures. A practice set is required. Prerequisite: 2.766 and 2.767 are required for all one-year bookkeeping-clerical students. 2.766, 2.767 are required for all two-year business students. 2.767 is a prerequisite for 2.768 or approval of instructor. 2.769 Cost Accounting (3 Class Hrs/Wk) Term Units 3
Introduction to the analysis and control of material, labor, and overhead costs in manufacturing, with emphasis on process and job order cost systems. Prerequisite: Accounting 2.768 or approval of instructor.

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.

3.300 Suspension and Brake Systems (2 Class, 3 Lab Hrs/Wk) Term Units 3
The construction and operation of front and rear suspension systems and hydraulic brakes. Includes adjustment and repair procedures. Prerequisite: Practical Physics 4.300.

3.304 Internal Combustion Engines I (2 Class, 3 Lab Hrs/Wk) Term Units 3
Theory, operation, and maintenance of internal combustion engines.

3.306 Internal Combustion Engines II (1 Class, 4 Lab Hrs/Wk) Term Units 2
Engine overhaul techniques, using industry standards. Includes machining and repair processes required in engine reconditioning. Prerequisite: Internal Combustion Engines I 3.304.

3.308 Electrical 1 (3 Class, 3 Lab Hrs/Wk) Term Units 4
Theory and application of basic electricity to motors and engine accessories. Prerequisite: Practical Physics 4.304.

3.310 Fuel Systems (2 Class, 3 Lab Hrs/Wk) Term Units 3
Theory and operation of major components of fuel systems of internal combustion engines.

3.314 Power Accessories (2 Class, 2 Lab Hrs/Wk) Term Units 3
Theory and operation of power steering, power brakes, power windows, and power tops. Includes disassembly, assembly, and testing of various power units. Prerequisite: Hydraulics-Pneumatics 3.320.

3.316 Power Trains (1 Class, 2 Lab Hrs/Wk) Term Units 2
Power transmission through clutches, standard transmissions, overdrive, drive lines, and differentials. Typical units are disassembled, assembled, and adjusted. Prerequisite: Suspension and Brake Systems 3.300.

3.318 Steering Controls (2 Class, 3 Lab Hrs/Wk) Term Units 3
A detailed study of wheel alignment factors, equipment and procedures. Wheel balancing methods are included with alignment trouble diagnosis. Prerequisite: Suspension and Brake Systems 3.300.

3.320 Hydraulics-Pneumatics (2 Class, 2 Lab Hrs/Wk) Term Units 3
Theory and application of hydraulic power in industry.

3.321 Basic Industrial Hydraulics (3 Class Hrs/Wk) Term Units 4
The course consists of a study of the basic laws that govern hydraulic power; a study of a majority of industrial hydraulic component, their nomenclature, operation, and function; and the complete basic hydraulic circuitry necessary for primary linear, and rotary actuation.

3.322 Electrical II (3 Class, 3 Lab Hrs/Wk) Term Units 4
Principles and operation of D.C. and A.C. generation and regulation systems. Emphasizes the use of test instruments to locate malfunctions and to adjust regulation devices. Prerequisite: Electrical 3.308.

3.324 Diagnostic Procedures (2 Class, 3 Lab Hrs/Wk) Term Units 3
Systematic testing and tuning of I.C. engines. Prerequisite: Electrical 3.322.
Technical-Vocational and Adult Course Descriptions

3.326 Automatic Transmission (3 Class, 3 Lab Hrs/Wk) Term Units 4
Theory and operating principles of automatic transmission, hydraulic and power flow principles are applied to typical units. Prerequisite: Hydraulics-pneumatics 3.320.

3.329 Mechanical Systems Laboratory (5 Lab Hrs/Wk) Term Units 3
Engine overhaul, carburation, and electrical system service. Prerequisite: 4th term standing.

3.331 Mechanical Systems Laboratory (9 Lab Hrs/Wk) Term Units 3
A continuation of 3.329.

3.332 Service Management (12 Class Hrs/Wk) Term Units 2
A course designed to give the students an appreciation of the duties and responsibilities of the service manager. Prerequisite: 6th term standing or equivalent.

3.333 Mechanical Systems Laboratory (9 Lab Hrs/Wk) Term Units 3
The final course in shop service operations. Emphasis is placed on flat rate labor cost estimating and job selection for repair and installation. Prerequisite: 6th term standing, plus 3.331.

4.101 Drafting (4 Lab Hrs/Wk) Term Units 2
This is a fundamental course in drafting designed to give the students an understanding of drafting techniques. Emphasis will be placed on the application of approved lettering techniques. Drafting techniques such as geometric construction, drafting instruments, standard orthographic projection, layout procedures, and ASA selection of views, sectional and auxiliary views, revolutions, threads, and standard dimensional 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, block diagrams, schematic and pictorial wiring diagrams, routing diagrams (power distribution, lighting, conduit and ducts, underground wiring, etc.), and projection 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. Prerequisite: 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 analysis, thermodynamics, isometric drawings, welding drawings, tolerances and allowances, and tool jig drawings. Simplified drafting techniques 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.

4.110 Blueprint Reading and Sketching (2 Class, 2 Lab Hrs/Wk) Term Units 3
Introduction to blueprint reading and basic industrial sketching.

4.111 Structural Drafting (6 Lab Hrs/Wk) Term Units 2
An advanced course emphasizing civil and structural drafting procedures. It includes the function and design of: the general plan, stress diagrams, shop drawings, foundation or masonry plans, erection diagrams, falsework plans, and steel metal layout. Also, bill of materials, rivet lists, drawing indexes, design considerations, and strength of joints will be covered. The student will become acquainted with structural shapes, and principles of bridge building, dam and earthwork constructions. Prerequisites: Drafting 4.103 and Applied Physics 6.370 or equivalent.

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 freehand sketches and drawings, checking and back-checking drawings, and material take-offs. Discussion will cover the administration of the drafting room, the techniques of drafting, and revision of drawings. Speed and accuracy will be considered of paramount importance. Prerequisite: Drafting 4.103 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 sub-assemblies, 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 I (1 Class, 3 Lab Hrs/Wk) Term Units 2
Introduction to welding, cutting, brazing and soldering. Includes theory and practice in all areas.

4.151 Welding II (1 Class, 3 Lab Hrs/Wk) Term Units 2
An advanced course which provides instruction and laboratory practice in the more difficult welding positions and in the use of shielded arc welding machines.

4.160 Metals Technology (2 Class, 3 Lab Hrs/Wk) Term Units 3
Theory and application of ferrous physical metallurgy, basic theory of metals, heat treating, and microscopic analysis.

4.161 Metals Technology II (2 Class, 3 Lab Hrs/Wk) Term Units 3
Laboratory procedures for preparing metallic specimens for metallurgical inspection. Basic metal microscopic analysis and exploration by use of various industrial metals, heat treatments and weld joints.

4.170 Machine Tool Practices (2 Class, 4 Lab Hrs/Wk) Term Units 3
Fundamentals of precision metal shaping with hand and machine processes.

4.171 Machine Tools Practices II (2 Class, 3 Lab Hrs/Wk) Term Units 3
Develop basic concepts into more advanced machine theory and practice.

4.202 Mathematics (3 Class, 2 Lab Hrs/Wk) Term Units 4
A practical review of arithmetic, fundamentals of applied algebra and geometry.
Technical-Vocational and Adult Course Descriptions

4.204 Mathematics (3 Class, 2 Lab Hrs/Wk) Term Units 4
The application of arithmetic, algebra, geometry and trigonometry to various occupation and industrial problems.

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.

5.190 Basic Law Enforcement (3 Lab Hrs/Wk) Term Units 3
A basic training program of 120 hours divided into 4 terms of 30 hours each. The course work parallels the recommended curriculum of the State of Oregon Police Academy by the Board of Police Standards and Training. This course requires a prerequisite of reserve law enforcement status.

5.200 Introduction to Law Enforcement (3 Class Hrs/Wk) Term Units 3
The philosophy and history of law enforcement; overview of crime and police problems; organization and jurisdiction of local, state and federal law enforcement agencies; and an overview of professional career opportunities, qualifications required, and police ethics.

5.202 Administration of Justice (3 Class Hrs/Wk) Term Units 3
Review of court systems; procedures from incident to final disposition; principles of constitutional, federal, state and civil laws as they apply to and affect law enforcement.

5.204 Defensive Tactics (2 Lab Hrs/Wk) Term Units 1
A course designed to teach the rudiments of self-defense and attack. Boxing, wrestling, and hand-to-hand combat will be offered.

5.206 Defensive Tactics (2 Lab Hrs/Wk) Term Units 1
A continuation of Defensive Tactics 5.204.

5.208 Criminal Law (3 Class Hrs/Wk) Term Units 3
The structure definitions and the most frequently used section of the Penal Code and other criminal statutes.

5.210 Traffic Control (2 Class, 3 Lab Hrs/Wk) Term Units 3
Traffic law enforcement, regulation and control, fundamentals of traffic accident investigation; Oregon Motor Vehicle Code.

5.212 First Aid (2 Lab Hrs/Wk) Term Units 1
A class in standard First Aid procedures and techniques designed to meet graduation requirements of all students as well as adults who wish to secure first aid training. Upon a successful completion of course, a standard First Aid card may be secured.

5.213 First Aid (2 Lab Hrs/Wk) Term Units 1
A continuation of First Aid 5.212.

5.214 First Aid (2 Lab Hrs/Wk) Term Units 1
A continuation of First Aid 5.213.

5.216 Criminal Investigation (3 Class Hrs/Wk) Term Units 3
Fundamentals of investigation; crime scene search; sketching and recording; collection and preservation of physical evidence; scientific aids; modus operandi; sources of information; interviews and interrogation, follow-up and case preparation.

5.217 Criminal Investigation (3 Class Hrs/Wk) Term Units 3
Continuation of 5.216 including collection and preservation of physical evidence; scientific aids; modus operandi; sources of information interviews and interrogation, follow-up and case preparation.

5.218 Criminal Investigation (3 Class Hrs/Wk) Term Units 3
A continuation of Criminal Investigation 5.217.

5.220 Patrol Procedures (2 Class, 3 Lab Hrs/Wk) Term Units 3
Purpose of patrols - perception and observation - protection and prevention - suppression - identification and apprehension - types of patrols - purpose - hazards - assignments - response to emergencies - action to be taken - officers approach on foot - in an auto - home, building or room - operation of motor vehicle.

5.222 Criminal Evidence (2 Class, 3 Lab Hrs/Wk) Term Units 3
The kinds and degrees of evidence and the rules governing the admissibility of evidence in court.

5.226 Firearms (2 Lab Hrs/Wk) Term Units 1
The moral aspects, legal provisions, safety precautions and restrictions covering the use of firearms; firing of the side-arm, riot shotgun, and other weapons. Combined lecture and laboratory (range).

5.227 Firearms (2 Lab Hrs/Wk) Term Units 1
A continuation of Firearms 5.226.

5.228 Firearms (2 Lab Hrs/Wk) Term Units 1
A continuation of Firearms 5.227.

5.230 Field Work (2 Lab Hrs/Wk) Term Units 1
Actual field practice (as a member of the Campus Police) in traffic control, buildings and grounds security, crowd control at campus functions; further practice in police report writing, communications and maintenance of records; civil service procedures.

5.231 Field Work (2 Lab Hrs/Wk) Term Units 1
A continuation of Field Work 5.230.

5.232 Jail Procedures (2 Lab Hrs/Wk) Term Units 1
Basic instruction covering the receiving, booking, and searching of prisoners and their care and custody; the laws relative to commitments, holding orders, and warrants; duties and responsibilities of the officer as outlined in the law regarding property and belongings of prisoners. Detention of prisoners for outside agencies.
Technical-Vocational and Adult Course Descriptions

5.234 Problems of Physical Evidence (2 Class, 3 Lab Hrs/Wk) Term Units 3
Techniques of locating, collecting, and identifying physical evidence. Use of fingerprinting, costs and molds, photography, and sketching. Basic laboratory aids and the use of scientific equipment in the evidence process.

5.236 Juvenile Procedures (2 Class, 3 Lab Hrs/Wk) Term Units 3
The organization, functions, and jurisdiction of juvenile agencies; the processing and detention of juveniles; juvenile case disposition; juvenile statutes and court procedures.

5.238 Criminal Law (3 Class Hrs/Wk) Term Units 3
A continuation of Criminal Law 5.208.

5.246 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, makeup 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.

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.

5.505 Nursing Care in Conditions of Illness Class Hrs. 129
This course consists of studies of anatomy and physiology, the nutritional needs and conditions of the human body'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.

5.508 Normal Health, Growth & Development Class Hrs. 128
This course consists of studies of the causes, symptoms and treatment of disease of the healthy body with meal planning, and the growth 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 Term Units 3
Approximately 1232 Hours
This consists of the actual nursing care in the hospital. It is divided into the following major items:
- Medical Organization & Nursing Procedure
- Surgical Nursing
- Medical Nursing
- Obstetrical Nursing (Including New Born)
- Pediatric Nursing
- Geriatrics & Long-term Illness
- Recovery Room
- Central Supply

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 I (1 Class, 4 Lab Hrs/Wk) Term Units 3
A continuation of Plane Surveying 6.101 designed to familiarize students completely with the engineer's transit. Uses of the transit are considered and practical problems put the theory 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 6.109 and Technical Mathematics 6.266 should be taken concurrently.

6.108 Materials of Construction (2 Class Hrs/WK) Term Units 2
This course covers the study 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.

6.110 Construction Estimating (2 Class Hrs/Wk) Term Units 2
The student is helped to develop skills in estimating the amount and cost of materials required and labor cost involved in various types of construction. An opportunity is provided for the application of these skills by requiring the student to make estimates of material and labor quantities and costs for representative types of construction. Prerequisite: Fifth term standing or permission of instructor.

6.111 Applied Mechanics II (2 Class, 3 Lab Hrs/Wk) Term Units 3
A study of energy in motion. The course covers the principles of friction, centroids, inertial characteristics, motion and velocity, force and acceleration, curve motion and rotation, and advanced concepts of work, power and energy. Time is provided for demonstrations and experiments to help clarify the principles and procedures covered. Prerequisite: Applied Mechanics 6.109 or the equivalent.
6.112 **Hydraulics I** (3 Class Hrs/Wk)
The first course in the study of hydraulics covers the fundamental properties of fluids, principles of hydrostatic pressure— including Pascal's Law, the hydraulic Paradox, the Archimede's Principle — measurement by manometer, the measurement of fluid properties. The relationship of hydrostatic pressure and center of gravity and the effect of hydrostatic pressure exerted against plane surfaces will also be discussed. Time is provided for demonstrations and experiments to help clarify the principles and procedures covered. Prerequisites; Applied Physics 6.371 and Technical Mathematics 6.266 or equivalent.

6.114 **Hydraulics II** (3 Class Hrs/Wk)
The second course in hydraulics consists of the fundamentals of fluid flow, Bernoulli's theorem, flow profiles, stream restrictions (such as weirs, flumes, metering runs), distribution of energy in the stream, flow through pipe, Reynolds' Law, Newton's Laws of hydrodynamics, vector representation, hydraulic similitude, and dimensional analysis. Time is provided for demonstrations to help clarify the principles and procedures covered. Prerequisite: Hydraulics 6.112 or equivalent.

6.115 **Electrical Mathematics** (3 Class, 2 Lab Hrs/Wk)
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.

6.118 **Contracts and Specifications** (3 Class Hrs/Wk)
This is a course designed to acquaint the student with common usage and practice in the preparation of contracts and attendant specifications. Examination of existing contracts covering current jobs will be used whenever possible with practical problems designed to teach the application of theory learned. Prerequisite: Second year standing or approval of instructor.

6.120 **Foundations of Structures** (3 Class Hrs/Wk)
A study of various materials, devices, and designs used in structural foundations such as caisson, soil, columns, abutments, piers, and underpinning. Prerequisites: Applied Mechanics 6.111 and Technical Mathematics 6.266 or equivalent.

6.122 **Construction Codes** (2 Class Hrs/Wk)
A study of the required practices as stated in local, state and federal construction codes.

6.123 **Concrete Construction & Design** (2 Class, 5 Lab Hrs/Wk)

6.124 **Soil Mechanics** (2 Class, 3 Lab Hrs/Wk)
Physical properties of soil; specific gravity, grain size distribution, plasticity, shrinkage, permeability, compressibility, consolidation and shear characteristics. Analysis with respect to stability of slopes, earth pressures, stress distribution, and settlement carrying capacity. Prerequisite: second year standing or approval of instructor.

6.125 **Timber and Steel Constr.** (3 Class, 3 Lab Hrs/Wk)
Term Units 4
Elementary design principles of steel and wooden structures. The course includes fasteners, connections and physical and chemical characteristics of materials. Prerequisites: Structural Analysis and Design 6.130 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: Communications 1.111 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.

6.128 **Strength of Materials** (2 Class, 3 Lab Hrs/Wk)
Term Units 3
This is a continuation of Strength of Materials I. In addition to advanced theory in the area of materials characteristics, field trips will be taken to enable the student to observe use of different materials in actual installations. A continuation of material testing is included in the laboratory. Prerequisite: Strength of Materials 6.107 or equivalent.

6.130 **Struct. Analysis & Design** (3 Class, 3 Lab Hrs/Wk)
Term Units 2
The course deals with the determination of stresses induced by loads on structures of wood, steel, concrete, selections of appropriate structural members and suitable connections; loading conditions causing compression, tension, shear, torsion, and bending; practical design procedures, relating to various structural members, beams, girders, columns and footings. Prerequisites: Applied Mechanics 6.109 and Technical Mathematics 6.266 or equivalent.

6.131 **Mapping and Computing** (4 Lab Hrs/Wk)
Term Units 2
Advanced map plotting, earthwork computation, field surveying from maps; legal description; subdivision planning and simulated problems of construction are used. Prerequisites: Surveying Computations 6.300 and Technical Mathematics 6.266 or equivalent.

6.133 **Mapping and Computing** (6 Lab Hrs/Wk)
Term Units 2
Advanced earthwork computation; office procedure; government surveys; surveying laws, professional procedures. Simulated problems are used. Prerequisite: Mapping and Computing 6.131 or equivalent.

6.135 **Engineering Problems** (2 Lab Hrs/Wk)
Term Units 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.
Technical-Vocational and Adult Course Descriptions

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 mutual- 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 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 operational amplifiers, feedback amplifiers, basic operational amplifiers, feedback amplifiers, operational amplifiers, and phase shift. 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.

6.206 Electrical Circuits Lab (6 Lab Hrs/Wk) Term Units 2
Research Applications in the 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 bit fall times, damping, 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 analysis 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 semi-conducting junction devices; multi-voltage, three-element vacuum tubes; multi-element solid-state transistors; and tube-base equivalent circuits, 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 the current electron 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 Thyatron is tested with A-C and D-C plate voltages, using a phase-shifter for grid-control. Includes the testing of Zener and double-sided diodes and special transistors such as the PNPN. Transformer-coupled theory is verified by testing out-under-coupled, optimum-coupled and over-coupled collectors. Gain of amplifiers is compared in decibels and equivalent 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 tubes and transistor analysis. Involves the study of single-phase rectifier circuits and filters with calculation 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, inhomogeneous sine-wave oscillators, nonsinusoidal 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 ballast circuits and full-wave single-phase rectifier circuits. Includes a study of the wave-shape and ripple-voltage. Includes the construction and testing of Hartley, Colpitts, Armstrong, emitter-coupled, crystal, tri-tet, phase-shifter, Hartley, and Colpitts amplifiers. 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 pentodes 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 the use of oscilloscopes. Prerequisites: Fourth 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. Includes 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, each of which may be encountered in industry communications, industrial development, typewriting, and radar. Class meetings involve overview of each area and study of current problems and opportunities. Lab involves construction of papers and waveforms 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. Includes the development 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 ampiodynamic; and the electronic control of welding. Prerequisites: Fifth term standing or approval of department head.

6.220, 6.221 Introduction to Electronics I and II (3 Class Hrs/Wk) Term Units 3
The course consists of a study of the basic principles of electronics and electricity as well as applications which the student may encounter. While the student is not able to obtain this knowledge which may prove helpful in his future work, he may be able to understand these devices with which he may come in contact.

6.228 Industrial Television (2 Class, 3 Lab Hrs/Wk) Term Units 3
A theory and lab course designed to teach television systems, scanning and synchronizers, composite video signal, frequency-modulated television receivers and monitors, picture tubes, power supplies, video amplification, practical design of video amplifiers, brightness-control and D-C reinsertion video detection 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 characteristics, frequency, and applications, linearity, importance of pulse shapes, and responses of frequency-selective circuits to pulses. Includes the theory and operation of limiters and clipper circuits, differentiation 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 analysis, 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 servomechanisms, elementary forms of control systems, servo systems, synchros, servo element, electronic and magnetic amplifiers, servosystems, performance improvements, testing for servos and servomechanisms, and examples of servos and servos 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 transistors 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 devices, and the control element. Prerequisites: Fifth term standing or approval of department head.

6.244 Microwaves (2 Class, 3 Lab Hrs/Wk) Term Units 3
A classroom 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 line, field, and waveguide, basic microwave theory, cavity resonators, and microwave measurements. Transmission of microwave energy through waveguides is analyzed and the TE and TM modes of transmission are studied. Various types of waveguides, including chokes, directional couplers, flip-attenuators, horns, guide partitions, and flexible waveguides are studied. Includes also cavity resonators, high-frequency oscillators, magnetron and klystron oscillators, the resonator 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, mechanical working of materials, and 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. Prerequisites: 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, reactance, and capacitance. Phase-angle, reactance, and impedance are calculated and checked, and vector diagrams are drawn to represent 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, selvyn 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 and its applications in trigonometry, algebra, simple geometry, vector analysis, 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 course in mathematics on the technician level, including logarithms, right and oblique triangle 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, arithmetic and geometric progressions, mathematics of investment, exponential functions, complex notation and vector algebra. 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 of matte, structure of 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.
Technical-Vocational and Adult Course Descriptions

6.414 Forest Contracts (3 Class Hrs/Wk)  Term Units 3
The student is taught the elements of the various types of forest contracts. Also the individual roles in the administration of contracts to obtain the desired management results. Emphasis is placed upon the personal responsibilities of timber/or sale administrators, the records, and actions which may or may not be taken.

6.416 Photogrammetry and Photo Interpretation (2 Class, 3 Lab Hrs/Wk)  Term Units 3
This is a beginning course in the field use and field control of aerial photographs.

6.450 Technical Chemistry (3 Class, 3 Lab Hrs/Wk)  Term Units 4
An introduction to chemistry including a description of atoms and how they combine to form compounds, the states of matter, and a description of the chemistry of hydrogen and oxygen.

6.452 Technical Chemistry (3 Class, 3 Lab Hrs/Wk)  Term Units 4
The second term of Technical Chemistry covering: the chemistry of solutions, descriptive chemistry of the metals and nonmetals, and electrochemistry.

6.454 Technical Chemistry (3 Class, 3 Lab Hrs/Wk)  Term Units 4
The third term of chemistry covering organic chemistry. The chemistry of functional groups of both alkyl and amyl compounds, stereochemistry, and the chemistry of macromolecules.

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, planimeters in application to irregular areas, calculations relating to traverses, subdivision of land and aerial survey plotting is also covered. Prerequisites: Plane Surveying 6.101, 6.103 and Technical Mathematics 6.262.

6.550 Introduction to Aviation (3 Class Hrs/Wk)  Term Units 2
Basic aerodynamics, aircraft engines, preflight procedures, airground communications and federal regulations for the private pilot.

6.560 Air Navigation (3 Class Hrs/Wk)  Term Units 2
Cross country flight planning, navigation, radio navigation meteorology and related FAA regulations for the private pilot. Satisfactory completion of this course should qualify the student for the FAA Private Pilot written examination.

6.570 Aerodynamics (3 Class Hrs/Wk)  Term Units 3
Aircraft loading, flight dynamics, integrated theory of engines in flight with related problems of maintenance and safety control. Applicable FAA regulation. Prerequisite: 6.550 or instructor approval.

6.571 Aeronautics and Meteorology (3 Class Hrs/Wk)  Term Units 3
Advanced study of air navigation with related meteorology. Modern navigation equipment, interpretation and analysis of meteorological data. Prerequisite: 6.550 or instructor approval. Satisfactory completion of this course should qualify the student to take the FAA Commercial Pilot written examination.

6.572 Instrument Flight I (3 Class Hrs/Wk)  Term Units 3
Aircraft equipment, navigation charts, flight planning, weather reports and forecasts for instrument flight. Related FAA regulation. Prerequisite: 6.560, private pilot license or instructor approval.

6.573 Instrument Flight II (3 Class Hrs/Wk)  Term Units 3
Operating in an air traffic control environment. Departure and approach techniques, holding, ATC clearances, emergency regulations and procedures. At the completion of this course the student should be prepared to take the FAA written examination in Instrument Flight.

6.574 Flight Familiarization I (3 Class Hrs/Wk)  Term Units 1
Basic training including at least 12 hours dual instruction and flight observer plus related ground instruction to enable the student to operate the aircraft in solo flight. Prerequisite: 6.574, Flight Familiarization.

6.575 Flight Familiarization II (3 Class Hrs/Wk)  Term Units 1
Basic training including at least 12 hours command flight and observer time plus related ground instruction to enable the student to undertake safe cross country solo flight under all normally anticipated conditions. Prerequisite: Flight Familiarization II or equivalent.

6.577 Flight Training II (72 Lab Hrs)  Term Units 2
Advanced instruction including 10 hours dual flight, 20 hours solo flight and related ground instruction to enable the student to undertake safe cross country solo flight under all normally anticipated conditions. Prerequisite: Flight Training I or equivalent.

6.578 Flight Training III (72 Lab Hrs)  Term Units 2
Advanced instruction including at least 18 hours dual flight, 24 hours solo flight and related ground instruction to familiarize the student with IFR operating procedures and to develop proficiency in precision maneuvers. Prerequisite: 6.577 Flight Training II.

6.579 Flight Training IV (72 Lab Hrs)  Term Units 2
Advanced instruction, including 18 hours dual flight, 24 hours solo flight and related ground instruction. Satisfactory completion of this course should qualify the student for the FAA Commercial Pilot and Instrument Rating Examinations. Prerequisites: 6.578 Flight Training III.

6.580 Data Processing Fundamentals (3 Class Hrs/Wk)  Term Units 3
An introduction to the field of Data Processing including history, basic concepts, understanding systems, electronic computer systems, programming systems, introduction to a programming language, current developments, implications and applications.

6.581 Data Processing Fundamentals (2 Class, 2 Lab Hrs/Wk)  Term Units 3
An introduction to the theory and operation of digital computers including basic theory and concepts, input and output, storage devices, central processing units, programming systems, operating systems and procedures and an introduction to a problem oriented language.
6.902 Systems and Procedures I (1 Class, 4 Lab Hrs/Wk) Term Units 3
An introduction to systems and procedures including organizational theory, documentation, coding and card design, form design and control, graphic devices, feasibility studies, work analysis, and applications.

6.903 Introduction to Programming (3 Class, 2 Lab Hrs/Wk) Term Units 4
Programming concepts, programming systems, programming a computer in a subjects oriented language (Fortran or PL/1).

6.904 Systems and Procedures II (2 Class, 4 Lab Hrs/Wk) Term Units 3
A continuation of Systems and Procedures I with emphasis on case studies and student projects.

6.905 Intermediate Programming (2 Class, 4 Lab Hrs/Wk) Term Units 3
Development of programming skills in a second language (COBOL and/or RPG).

6.906 Data Processing Management (3 Class Hrs/Wk) Term Units 3
Basic management concepts, organization of data processing, staff, facilities, hardware, documentation, operations, control, cost analysis, management systems, management case studies and projects.

6.907 Advanced Programming (2 Class, 4 Lab Hrs/Wk) Term Units 3
Emphasis on assembling, operating systems, control languages, special language systems and applications.

6.908 Special Problems in Data Processing (1 Conf., 3 Lab Hrs/Wk) Term Units 2
Individual problems and projects designed to meet the needs of the student.

6.909 Computer Operations (2 Class, 4 Lab Hrs/Wk) Term Units 3
Basic concepts and procedures, computer operations, peripheral devices, operating systems, terminals, timesharing, operational management, operations projects.

6.911 Computer Applications (2 Class, 4 Lab Hrs/Wk) Term Units 4
The operations of electronic computers to the solution of data processing in such areas as inventory control, sales, analysis, payroll, production scheduling, banking, insurance, utilities, government, and manufacturing. Prerequisite: Introduction to Programming 6.903 and Systems and Procedures 6.904 or approval of department head.

6.912 Business Statistics (3 Class Hrs/Wk) Term Units 3
A practical course in the use and interpretation of statistics incorporating elementary statistical concepts, frequency distribution analysis, index numbers, use of tables, charts, and graphs, sampling error theory, statistical distributions and their measurement, time series analysis, trends and seasonal cycles. Prerequisite: Mathematics 4.204 or approval of department head.

6.913 Introduction to Electric Accounting Machines (2 Class, 2 Lab Hrs/Wk) Term Units 3
Introduction to the theory, function, operation and programming of unit record equipment with particular emphasis on their use as computer support devices.

6.916 Mathematics for Data Processing (3 Class Hrs/Wk) Term Units 3
Number theory and systems, functions, systems of equations, matrices, Linear Programming Concepts, Boolean Algebra, and an Introduction to Numerical Analysis.

7.131 Orientation to Food Services (2 Hrs/Wk) Term Units 2
Explores the various aspects of food service occupations including job requirements, supervision, management, purchasing, preparation and food service. Field trips to various institution kitchens are included.

7.134 Food Preparation I (3 Hrs/Wk) Term Units 3
The course includes the principles of food preparation with emphasis on the scientific principles of cookery. Demonstrations and experiments will be presented to illustrate the effects of various ingredients, variation in preparation techniques and the critical steps in the preparation of basic food products. The course will serve as a background for quantity foods courses for the individual interested in institution food service.

7.136 Food Preparation Workshop (3 Hrs/Wk, 4 Wks) Term Units 1
A short course presenting techniques used in preparing special foods for holidays and special occasions. Designed for individual preparing for work in food service or for those employed in institution food services.

7.138 Practical Nutrition (2 Hrs/Wk) Term Units 2
This course is designed for students enrolled in practical nursing, food service and child care programs and others interested in a study of basic nutrition. Covers functions of food and its relation to health, the various nutrients, bodily requirements, and processes involved in utilization of food.

7.139 Diet Therapy (2 Hrs/Wk) Term Units 2
The course is designed to give hospital cooks more background and understanding in planning, preparing, and serving therapeutic diets, especially in the absence of a dietitian.

7.152 Working with Young Children in Preschool Programs (2 Hrs/Wk) Term Units 2
This course is designed for the individual who plans to work with children in child day care, play school or nursery school situations. Includes ways of working with young children and techniques effective in presenting and supervising games, art, and music experiences and other activities useful in fostering the physical, social and emotional development of young children.

7.150 Dressmaking as a Business (3 Hrs/Wk) Term Units 3
Designed for the individual who is interested in sewing for others for a profit. Includes study of techniques, special construction techniques as well as the business aspects, including record keeping, advertising, customer relations, business regulations, and establishment of prices are included.

9.005 Computer Application Workshop (6 Hrs Total) Term Unit 1
An introduction to computer applications in a particular occupational area. The workshop is designed to introduce the participant to the computer concepts and methods that are a necessary prerequisite to using the computer in the particular field. It is primarily for professionals in the field who have had no training or experience with computers.
9.100 Blueprint Reading and Sketching I (3 Class Hrs/Wk)  Term Units 3
Introduction to blueprint reading and basic industrial sketching.

9.110 Carburation for Auto Mechanics (3 Lab Hrs/Wk)  Term Units 1
A course providing an overall knowledge of fuel systems beginning with basic carburetion theory and circuitry to be applied to common types of carburetors, including four barrel and multiple carburetor installations. Lab experience is provided on representative types of modern carburetors. The course is aimed toward upgrading skills of students having previous automotive experience. Prerequisite: Employment in the field and consent of instructor.

9.111 Electrical Systems for Auto Mech. (3 Lab Hrs/Wk)  Term Units 1
A course beginning with basic electrical theory and automotive electrical system fundamentals which are applied to starting, igniting, and generating systems. Lab experience is provided in repair, adjusting, and testing of electrical systems. Prerequisite: Employment in the field and consent of instructor.

9.112 Tune-up for Auto Mechanics (3 Lab Hrs/Wk)  Term Units 1
An advanced course to provide students with knowledge of tune-up procedures and to develop diagnostic ability. Lab experience consists of demonstration and use of modern testing and analysis instruments. Recommended prerequisite: Employment in the field and consent of instructor.

9.116 Basic Industrial Hydraulics (3 Class Hrs/Wk)  Term Units 3
The course consists of a study of the basic laws that govern hydraulic power; a study of a majority of industrial hydraulic components, their proper operation, and function; and the complete basic hydraulic circuitry necessary for primary linear and rotary actuation.

9.117 Hydraulics II (3 Class Hrs/Wk)  Term Units 3
The course consists of the study of hydraulic circuitry commonly used in industry with particular emphasis on the use of A.S.A. graphic symbols and diagrams, to analyze hydraulic circuits and diagnose malfunction.

9.130 Electronics for Electricians (3 Class Hrs/Wk)  Term Units 3
Course consists of study from text, "Electronics in Industry," by George Chute. Practical discussion will amplify the text as to the up-to-date theory and applications. Prerequisite: Some knowledge of electricity, mechanics, and mathematics.

9.131 Electronics for Electricians (3 Class Hrs/Wk)  Term Units 3
A continuation of Electronics for Electricians, 9.130.

9.150 Welding (Beginning) (1 Class, 3 Lab Hrs/Wk)  Term Units 2
Instruction in setup, adjusting and operation of oxyacetylene and arc welding equipment. Theory of identification and selection of proper electrodes and materials. Demonstration and practice in flat and horizontal position in all basic welding joints. Students learn to evaluate quality of welds by nick-break and guided bend testing methods. Prerequisite: Consent of instructor and employment in the field.

9.156 Basic Slide Rule Usage (2 Lab Hrs/Wk)  Term Units 2
A course designed to give students a knowledge and understanding of the nomenclature of the slide rule, the ability to use the slide rule, and an appreciation of the slide rule as a tool in technical studies and problem solving.

9.161 Welding (Advanced) (1 Class, 3 Lab Hrs/Wk)  Term Units 2
Advanced theory and techniques in oxyacetylene and arc welding, including the inert gas shielded arc welding of ferrous and nonferrous metals. Demonstration and practice is provided in all positions of welding including pipe welding. Standard industrial fabrication practices are also taught. Work is evaluated by both break and bend test methods. Prerequisite: Completion of 9.150 and consent of instructor.

9.166 Machine Tools Practices (1 Class, 3 Lab Hrs/Wk)  Term Units 2
A course designed to provide basic machine tool knowledge and concepts in developing an understanding of chip removal common in local industry.

9.167 Machine Tools Practices II (1 Class, 3 Lab Hrs/Wk)  Term Units 2
A continuation of first-term machine tool practices with more concentration on skill of machine operation.

APPRENTICE RELATED INSTRUCTION COURSES
The following apprentice-related instruction courses are offered by the College as needed. Apprenticeship training periods vary from three to six years according to the individual occupation. Each course provides related classroom instruction for apprentices registered under the Oregon Law and Plan of Apprenticeship. Classroom instruction is related to on-the-job training experiences outlined in apprenticeship standards.

9.186 Carpenter Apprentice (5 Hrs/Wk)  Term Units 1½
9.187 Industrial Electrician Apprentice (5 Hrs/Wk)  Term Units 1½
9.188 Inside Wireman Apprentice (5 Hrs/Wk)  Term Units 1½
9.189 Power Lineman Apprentice (5 Hrs/Wk)  Term Units 1½
9.190 Plumbers Apprentice (5 Hrs/Wk)  Term Units 1½
9.191 Sheetmetal Apprentice (5 Hrs/Wk)  Term Units 1½
9.192 Machinist Apprentice (5 Hrs/Wk)  Term Units 1½
9.193 Automotive Mechanic Apprentice (5 Hrs/Wk)  Term Units 1½
9.194 Painter Apprentice (5 Hrs/Wk)  Term Units 1½
9.200 Administrative Management Seminar (3 Class Hrs/Wk)  Term Units 3
The Administrative Management Course presents in a practical setting those principles and techniques of modern management of particular value in the solution of the problems of small business. In a series of meetings utilizing conference discussions, case studies, guest lectures, and supervised readings, the course provides an opportunity for its participants to discuss their specific problems and analyze current business practices.

9.202 Small Business Records Management (3 Class Hrs/Wk)  Term Units 3
For present or prospective owners or managers of small businesses. Designed to provide a proper understanding of the record keeping necessary to meet requirements of governmental agencies, financial institutions, to give the owner a better picture of his needs for cash, credit control, cost analysis, gross and net profit.

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## Technical-Vocational and Adult Course Descriptions

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<th>Course Title</th>
<th>Term Units</th>
<th>Description</th>
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<tr>
<td>9.204</td>
<td>Small Business Operation (3 Class Hrs/Wk)</td>
<td>Term 3</td>
<td>An introduction to the small business in the American economy and 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.</td>
</tr>
<tr>
<td>9.301</td>
<td>Fire Training — Basic “A” (30 Hours)</td>
<td>Term 1</td>
<td>A beginning course to acquaint the student with fire behavior, the organization of his department, how he should conduct himself in the department and responding to alarms and training to develop skills in the use of small tools, ropes, knots, hose lines and ladders.</td>
</tr>
<tr>
<td>9.302</td>
<td>Fire Training — Basic “B” (30 Hours)</td>
<td>Term 1</td>
<td>A continuation of Fire Training 9.301 designed to train the student in the use of portable fire extinguishers, in methods of overhaul and salvage, in the principles of fire control in structural covere crops and in forcible entry tactics and in ventilation and rescue procedures. Preerequisite: Fire Training 9.301.</td>
</tr>
<tr>
<td>9.303</td>
<td>Fire Training — Basic “C” (30 Hours)</td>
<td>Term 1</td>
<td>A continuation of Fire Training 9.302, the study of fire streams, fire apparatus, pre-fire planning, flammable liquids and gases, structure fire problems and practice evolutions. Emphasis is placed on demonstration, practice and drill. Preerequisite: Fire Training 9.302.</td>
</tr>
<tr>
<td>9.400</td>
<td>Pharmacology (3 Class Hrs/Wk)</td>
<td>Term 3</td>
<td>A course designed for practical nurses who wish to learn some of the basic principles of pharmacy. It will give the students a better understanding of drugs; acquaint them with some of the most-used drugs and how to administer them; and acquaint them with some of the dangers of administering drugs.</td>
</tr>
<tr>
<td>9.500</td>
<td>Elements of Supervision (3 Class Hrs/Wk)</td>
<td>Term 3</td>
<td>A basic introductory course covering in general terms the total responsibilities of a supervisor in industry, such as organization, duties and responsibilities, human relations, grievances, training, rating, promotion, quality-quantity control, and management-employees relations.</td>
</tr>
<tr>
<td>9.501</td>
<td>Written Communications for Supervisors (3 Class Hrs/Wk)</td>
<td>Term 3</td>
<td>Review of writing mechanics covering grammar, punctuation, sentence structure and paragraph structure. Business letter-writing involving the principles, planning, and drafting of letters. Memorandum and bulletin writing with emphasis on format, content, structure, tone, and style. Manual writing covering format, content, and structure.</td>
</tr>
<tr>
<td>9.502</td>
<td>Basic Psychology for Supervisors (3 Class Hrs/Wk)</td>
<td>Term 3</td>
<td>A course to assist the supervisor in understanding the people with whom he works, with emphasis in such areas as psychological aspects, perceptions, learning processes, emotions, attitudes and personalities.</td>
</tr>
<tr>
<td>9.503</td>
<td>Oral Communications for Supervisors (3 Class Hrs/Wk)</td>
<td>Term 3</td>
<td>How we communicate. Effective speaking and listening. Kinds of supervisory communications. Saying what we mean, which covers oral versus written communications. Understanding what is communicated as related to intent and effect. Conference leading and practice for supervisors.</td>
</tr>
<tr>
<td>9.506</td>
<td>Human Relations (3 Class Hrs/Wk)</td>
<td>Term 3</td>
<td>The practical application of basic psychology in building better employer-employee relationships by studying human relations techniques. Prequisite: Basic Psychology for Supervisors 9.502.</td>
</tr>
<tr>
<td>9.507</td>
<td>Reading Improvement for Supervisors (3 Class Hrs/Wk)</td>
<td>Term 3</td>
<td>General approach to better reading through the proper use of text material, reading film, technitcope, and practice. Benefits of better reading, primary considerations in reading, evaluating and analyzing what is read, vocabulary improvement, advanced reading tips.</td>
</tr>
<tr>
<td>9.508</td>
<td>Labor-Management Relations (3 Class Hrs/Wk)</td>
<td>Term 3</td>
<td>The history and development of the Labor Movement. Development of the National Labor Relations Acts, the Wagner Act, the Taft-Hartley Act. The supervisor's responsibility for good labor relations. The union contract and grievance procedure.</td>
</tr>
<tr>
<td>9.512</td>
<td>Methods Improvement for Supervisors (3 Class Hrs/Wk)</td>
<td>Term 3</td>
<td>The supervisor's responsibility for job methods improvement. The basic principles of work simplification. Administration and the problems involved. Motion study fundamentals for supervisors. Time study techniques.</td>
</tr>
<tr>
<td>9.514</td>
<td>Cost Control for Supervisors (3 Class Hrs/Wk)</td>
<td>Term 3</td>
<td>How costs are determined in industry. Cost control and its functions. The supervisor's responsibility for costs. Factors in cost control: costs, materials, waste, salvage, quality control, quantity control, control of time.</td>
</tr>
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9.516 Supervisor's Responsibility for Management of Personnel (3 Class Hrs/Wk)  
Term Units 3  
Personnel techniques for which the supervisor is partially responsible for and for which he should have some training in carrying out his responsibility. Selection, placement, testing, orientation, training, counseling, merit rating, promotion, transfer, and training for responsibility.

9.518 Organization and Management (3 Class Hrs/Wk)  
Term Units 3  
The supervisor's responsibility for planning, organizing, directing, controlling, and coordinating. Acquaints the supervisor with the basic functions of an organization and his responsibility in carrying them out in accordance with the organization's plan. Establishing lines of authority, functions of departments or units, duties and responsibilities, policies and procedures, rules and regulations.

9.520 Job Analysis for Wage Administration (3 Class Hrs/Wk)  
Term Units 3  

9.522 Safety Training and Fire Prevention (3 Class Hrs/Wk)  
Term Units 3  

9.524 Management Controls and the Supervisor (3 Class Hrs/Wk)  
Term Units 3  
Basic principles of controls. Delegation of responsibility through the use of controls. The purpose and objectives of controls, manufacturing costs, quality control, quantity control, production control, control over materials, control over personnel and organization.

9.526 Public Relations for Supervisors (3 Class Hrs/Wk)  
Term Units 3  
An introduction to the practice of Public Relations as it relates to the profession of management. Prerequisite: Approval of instructor.

9.540 Conversational Japanese (2½ Hrs/Wk)  
Term Units 1  
A three term sequence in beginning conversational Japanese for the benefit of business and industrial workers for more effective communication with foreign speaking customers.

9.700 Beginning Typing (1 Class, 3 Lab Hrs/Wk)  
Term Units 2  
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 a rhythm in movements and attain an acceptable typing speed. He is introduced to simple forms of letters, tabulations, and manuscripts.

9.703 Advanced Typing Clinic (1 Class, 3 Lab Hrs/Wk)  
Term Units 2  
A continuation of 9.700 or 2.501. Individual units of study for those desirous of extending their present typing ability. These units are: (1) correspondence, (2) tabulation, (3) manuscript, and (4) speed/accuracy development. Ideal for both brush-up and intensive development of superior skills. Prerequisite: Acquaintance with the typewriter keyboard.

9.715 Elementary Bookkeeping and Record Keeping (1 Class Hr, 2 Lab Hrs/Wk)  
Term Units 1  
A course designed to help the student develop an understanding of bookkeeping and record keeping as they affect a small business. Students will learn to analyze and record simple transactions using double entry bookkeeping methods.

9.721 Beginning Shorthand (2 Class, 2 Lab Hrs/Wk)  
Term Units 3  
An introduction to theory, reading and writing outlines of abbreviated words, phrases and words of material. Course includes dictation and long-hand transcription of familiar material. Aims at dictation speed of 60 words a minute. Prerequisite: Satisfactory grade in high school English or pass qualifying English test. One term of typing or concurrent enrollment in typing.

9.722 Advanced Shorthand Clinic (2 Class, 2 Lab Hrs/Wk)  
Term Units 3  
Individual units of study for use of those desiring to extend their present shorthand ability. Each unit will be made up of two sections: (1) general review and (2) individual unit material. Individual units are: (1) dictation speed development, (2) transcription proficiency, (3) specialized dictation, and (4) shorthand note reading development. Prerequisite: Acquaintance with shorthand theory.

9.810 Farm Record Keeping (1 Class, 2 Lab Hrs/Wk)  
Term Units 3  
A course designed to present the essential tools and procedures used in farm record keeping for income tax purposes and for making management decisions.

9.813 Landscaping for the Home (2½ Hrs/Wk)  
Term Units 2  
A course designed to teach the student useful techniques in planting and beautifying the home grounds. A study of shrubs and trees for use in foundation planting will be included. Consideration will be given to the placement of walks, special structures, plant material, and trees as appropriate to the house plan and its relationship to the home ground.

9.900 Textile Workshop (6 Class Hrs/Wk, 2 Wks)  
Term Units 1  
A concentrated study of modern textile fabrics and the use and care problems involved. Relationship between fiber content and performance in wear, construction, drycleanability and washability of modern fabrics will be emphasized.

9.933 School Lunch Workshop (6 Hrs)  
Term Units 0  
A concentrated workshop to provide the school lunch cook an opportunity to acquire more knowledge in the areas of nutrition, menu planning and food preparation as well as an opportunity to share ideas and techniques useful in developing and conducting an effective school lunch program.

9.938 Menu Planning (2 Hrs/Wk)  
Term Units 2  
The course covers menu planning for quantity food service and will include basic menu planning, meeting protein requirements, fruit and vegetable requirements, the use of techniques and aids useful in menu planning. Menu planning for school lunch will also be studied.
Liberal Arts and Sciences Curriculum
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The Liberal Arts and Sciences represent the ancient and continuing effort of men to extend the range of their experience beyond the narrow limits of 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 area.

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 to the school of their choice. Students may arrange a general education program in the liberal arts, or they may plan a special course of study to meet particular needs.

The lower-division collegiate program at SWOCC 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 advisers of Southwestern Oregon Community 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 Southwestern Oregon Community 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.

**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 vocational goals, the lower division offers the opportunity to explore several fields of study to help determine special interests and aptitudes. The Counseling Center offers each student the opportunity to explore educational and vocational interests and goals through counseling and testing.

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.
BUSINESS ADMINISTRATION

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.

BA 131 Introduction to Business Data Processing 3 hours
Introduction to Data Processing, including concepts, methods, equipment, language fundamentals, and applications related to business.

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 real world business problems; proprietorship studies from standpoint of single owner, partnership, and corporation.

BA 226 Business Law 3 hours
Forms and functions of the law; application of the uniform commercial code which affects business decisions. Major emphasis on decisions involving contracts, agency, employment, personal property and bailments, and negotiable instruments, with selected segments in laws of sales, business organization and real property rights.

BA 232 Business Statistics 3 hours
Modern business decision theory, and statistics as a tool for business decision making. Primary emphasis on statistical description (tables, charts, and frequency distributions) and the elements of probability; consideration also of modern data processing, index numbers and time series analysis (trend, cyclical, and seasonal adjustments) of business data. No prerequisite, although one term of college algebra or a good high school background in math is suggested.

SECRETARIAL SCIENCE

SS 111, 112, 113 Stenography (2 Class, 3 Lab Hrs/Wk) 3 hours each term
Theory of Gregg Shorthand; practical application in sentence and paragraph dictation. SS 121, 122, and 123 must be taken concurrently unless student has had the equivalent. Students with one year of high school shorthand will be placed on the advice of the instructor.

SS 121, 122, 123 Typing (1 Class, 4 Lab Hrs/Wk) 2 hours each term
Theory and practice; drills of all kinds; punctuation and mechanical arrangements of business correspondence, legal forms, tabulating, manuscripts, modern business forms; straight copy timings; training on both manual and electric typewriters. Students will be placed in SS 121 or SS 122 upon the recommendation of the instructor.

SS 211, 212, 213 Applied Stenography (3/2 hr periods per wk) 3 hours each term
Advanced transcription with emphasis on comprehensive speedreading of notes in thought sequence; sustained dictation and transcription speed, coordination of skills in typing, shorthand and English Essentials. SS 211, 212, 213 must be taken consecutively. Prerequisite: Satisfactory completion of SS 113 or equivalent. Will not be offered after 1970-71.

FINE ARTS

ART 195, 196, 197 Basic Design 2 hours each term
A three term introductory sequence; a series of studio participation projects involving the basic principles and elements of design. Exercises and problems are developed to motivate individual research and creativity. Open to nonmajors.

ART 201, 202, 203 Survey of 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 a wide variety of art terms, lecture and visual presentations. Open to nonmajors.

ART 255 Ceramics 3 hours any term
A studio-laboratory course, involving the active participation of the individual student in art experiences designed as an introduction to the materials, methods and techniques of pottery design and structure. Primary consideration will be given to experiment with experimentation and familiarization in hand construction, throwing, glazing and firing. Open to nonmajors.

ART 290 Painting 3 hours each term
Instruction in the use of oil color, watercolors, or other media. Registration permitted any term but it is desirable that the work be started in the fall. Emphasis will be given to individual needs and interests in painting. Open to nonmajors.

ART 291 Drawing 2 hours each 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. Exploration of media, methods, and techniques in drawing will be emphasized. Open to nonmajors.

ART 292 Watercolor 3 hours any term
A studio-laboratory course, involving the active participation of the individual student in painting experiences aimed at developing visual and manipulative skills. The study of watercolor techniques with special attention to the particular characteristics of the medium, emphasis on landscape materials, may be substituted for a third term of Drawing, Art 291, to meet lower division major requirements. Open to nonmajors. Usually offered spring term. Prerequisite: Painting and drawing or approval.

ART 293 Elementary Sculpture 3 hours each term
An introduction to the language of forms and the elements of sculpture. The investigation of materials through compositional exercises in clay, plaster, wood and stone. Familiarization, experimentation, and expression in volume and mass together with oppositions in space, void, and shape. Primary considerations of media, methods, and techniques in sculpture. Open to nonmajors.

NOTE: ALL WORK DONE BY STUDENTS IS THE PROPERTY OF THE ART DEPARTMENT UNLESS OTHER ARRANGEMENTS ARE APPROVED BY THE INSTRUCTOR.

Mus 50 Basic Piano 1 hour any term
Classroom instruction for students not prepared for piano instruction at the level of Mus 190.

Mus 121, 122, 123 Musicianship 4 hours each term
A course to develop and strengthen basic musicianship in the student through a study of harmonic, functional and modal harmony, including modulation to related keys, secondary dominants, two part counterpoint. Written work correlated with sight singing, analysis, aural comprehension, and keyboard application is stressed. Consists of 3 classroom, 1 practice hours. Prerequisite: A background in group or individual music performance.

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**Liberal Arts and Sciences Course Descriptions**

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<th>Course Name</th>
<th>Credits</th>
<th>Description</th>
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<tr>
<td><strong>Mus 221, 222, 223</strong></td>
<td><strong>Musicianship II</strong></td>
<td>4 hours each term</td>
<td>Harmonic, melodic, rhythmic, and basic formal practices since 1700. Written work correlated with sight singing, analysis, keyboard, and aural comprehension. Prerequisite: Mus 123 or equivalent; satisfactory rating in test of keyboard proficiency.</td>
</tr>
<tr>
<td><strong>Mus 190</strong></td>
<td><strong>Performance Studies</strong></td>
<td>1 hour each term (maximum 3 hours)</td>
<td>Individual instruction.</td>
</tr>
<tr>
<td><strong>Mus 195</strong></td>
<td><strong>Band</strong></td>
<td>1 hour each term</td>
<td>(No more than 6 hours total credit may be earned in Mus 195, 196, 197.)</td>
</tr>
<tr>
<td><strong>Mus 196</strong></td>
<td><strong>Orchestra</strong></td>
<td>1 hour each term</td>
<td>(No more than 6 hours total credit may be earned in Mus 195, 196, 197.)</td>
</tr>
<tr>
<td><strong>Mus 197</strong></td>
<td><strong>Chorus</strong></td>
<td>1 hour each term</td>
<td>(No more than 6 hours total credit may be earned in Mus 195, 196, 197.)</td>
</tr>
<tr>
<td><strong>Mus 201, 202, 203—Intro. to Music and Its Literature</strong></td>
<td>3 hours each term</td>
<td>Development of understanding and intelligent enjoyment of music through a study of its elements, forms, and historical styles.</td>
<td></td>
</tr>
<tr>
<td><strong>Mus 224, 225, 226</strong></td>
<td><strong>Keyboard Harmony</strong></td>
<td>1 hour each term</td>
<td>Keyboard application of the theoretical principles studied in Mus 211, 212, 213; exercises in figured-bass realization, modulation, transposition, and score reading; development of exemplary playing. To be taken concurrently with Mus 211, 212, 213. Prerequisite: Mus. 113 or equivalent; satisfactory rating in test of keyboard proficiency.</td>
</tr>
<tr>
<td><strong>Mus 290</strong></td>
<td><strong>Performance Studies</strong></td>
<td>1 - 3 hours any term</td>
<td>Individual Instruction (3 hrs maximum) Prerequisite: proficiency required for satisfactory completion of Mus 190.</td>
</tr>
<tr>
<td><strong>SP 111, 112, 113</strong></td>
<td><strong>Fundamentals of Speech</strong></td>
<td>3 hours each term</td>
<td>Fundamentals of Speech is designed to acquaint the student with both the critical elements of another’s speech ability and to prepare the student for effective communication of ideas in oral form. The first term emphasizes content and organization. The second, explores the communication process through discussion formats. The third term emphasizes adjustment to the speaking situation, effective delivery, audience motivation, and the language of the speech.</td>
</tr>
<tr>
<td><strong>SP 232</strong></td>
<td><strong>Group Discussion</strong></td>
<td>3 hours</td>
<td>A practical exploration and practice of group problem solving, constructive participation and effective leadership.</td>
</tr>
<tr>
<td><strong>TH 101</strong></td>
<td><strong>Orientation to Theatre Art</strong></td>
<td>3 hours</td>
<td>Theatre 101 is designed to broaden the student’s insight—whether for reading plays, viewing dramatic art in a theatre, or participation in the production of dramatic works. The elements of drama and the theatre are analyzed for that resultant understanding.</td>
</tr>
<tr>
<td><strong>TH 102</strong></td>
<td><strong>Fundamentals of Acting</strong></td>
<td>3 hours</td>
<td>Fundamentals of Acting seeks to acquaint the student with basic techniques and to examine various fundamental theories of acting. Emphasis is placed upon character development, movement, and motivation.</td>
</tr>
<tr>
<td><strong>TH 103</strong></td>
<td><strong>Rehearsal and Performance</strong></td>
<td>3 hours</td>
<td>Rehearsal and Performance is designed to provide students with extended acting exercises in the various styles and periods of theatre. Various acting theories are studied with application to practice and the solution of acting problems.</td>
</tr>
<tr>
<td><strong>TH 121, 122, 123</strong></td>
<td><strong>Theatre Principles</strong></td>
<td>1 hour each term</td>
<td>Students are introduced to the unique group creation of theatre art. The elements of that group creation are determined and examined. First Quarter: A study of theatre as seen through all its elements. Second Quarter: Scene design and construction are emphasized. Third Quarter: Lighting, make-up and costumes are the elements stressed.</td>
</tr>
<tr>
<td><strong>TH 201</strong></td>
<td><strong>Theatre of the Past</strong></td>
<td>3 hours</td>
<td>Theatre of the Past traces a development of the theatre from classical Greece through the Renaissance period.</td>
</tr>
<tr>
<td><strong>TH 202</strong></td>
<td><strong>Continental Theatre</strong></td>
<td>3 hours</td>
<td>Continental Theatre involves the exploration of European and British stage practices from the Restoration to the 20th Century.</td>
</tr>
<tr>
<td><strong>TH 203</strong></td>
<td><strong>American Theatre</strong></td>
<td>3 hours</td>
<td>The story of the American Theatre presents one of the most colorful aspects of life in these United States from the colonial period to the present. NOTE: TH 201, 202, and 203 examine patterns of change in drama, theatre architecture, production methods, acting, directing, staging . . . and their effects on the social-cultural atmosphere of their time.</td>
</tr>
<tr>
<td><strong>TH 229</strong></td>
<td><strong>Oral Interpretation</strong></td>
<td>3 hours</td>
<td>Interpretation is designed to help the student improve and enjoy reading aloud from prose, poetry, and drama. It serves to aid in communication of intellectual and emotional values and to enhance one's appreciation of literature.</td>
</tr>
<tr>
<td><strong>TH 250, 251, 252</strong></td>
<td><strong>Theatre Workshop</strong></td>
<td>1, 2, or 3 hours each term</td>
<td>Theatre Workshop offers the student the opportunity to participate in creative and applied fundamentals of theatre production. Nonacting skills are the primary focus. Activity projects in theatre also form part of the course content. First Quarter: Emphasis on the total group process of play production in terms of participation is the focus. Second Quarter: Scene design and construction techniques are stressed. Third Quarter: Participation in the remaining elements of theatre production make up the final third quarter of the year sequence.</td>
</tr>
</tbody>
</table>

**SCIENCE AND MATHEMATICS**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Credits</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Bi 101, 102, 103</strong></td>
<td><strong>General Biology</strong></td>
<td>4 hours each</td>
<td>Biological principles applied to both plants and animals. 3 lectures; 1 three-hour laboratory period.</td>
</tr>
<tr>
<td><strong>Bot 201, 202, 203</strong></td>
<td><strong>General Botany</strong></td>
<td>4 hours each</td>
<td>Bot. 201 and 202 will basically cover structure, physiology, ecology, and genetics of the seed plants, how plants get their food, grow, differentiate, and reproduce. Bot. 203 will be a survey of the plant kingdom, including identification of native plants, use of keys, florid morphology. 2 lectures; 3 hours laboratory.</td>
</tr>
</tbody>
</table>
**Liberal Arts and Sciences Course Descriptions**

<table>
<thead>
<tr>
<th>Ch 104, 105, 106</th>
<th>General Chemistry</th>
<th>5, 4, 4 hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>An introductory course in general, inorganic chemistry. Introduction to concepts of atomic structure and its effect on the behavior of matter, the laws of chemical change, and the manipulation of scientific quantities. Prerequisite: satisfactory background in high school algebra or concurrent enrollment in Mth 0.510 Elementary Algebra.</td>
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</tbody>
</table>

*Ch 201, 202, 203  | General Chemistry  | 4 hours each term |
<table>
<thead>
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<th></th>
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</thead>
<tbody>
<tr>
<td>Service course covering basic principles of general chemistry. Three lectures and one three-hour laboratory. Prerequisite: one year of high school chemistry and proficiency in basic algebra, or acceptable college aptitude scores. The laboratory work during spring term will be largely devoted to qualitative analysis.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Transfer credit will not be granted for more than one of the two sequences. (Ch 104, 105, 106; Ch 201, 202, 203)*

<table>
<thead>
<tr>
<th>Ch 226, 227</th>
<th>Elements of Organic Chemistry</th>
<th>5 hours each</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chemistry of the carbon compounds; the aliphatics, aromatics, and derivatives. For premedical, and medical technology. 3 lectures, 2 three-hour laboratory periods.</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Ch 234</th>
<th>Quantitative Analysis</th>
<th>5 hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>Principles of gravimetric analysis, spectrophotometric analysis, and volumetric analysis. Designed for premedical, and medical technology students. 3 lectures, 2 three-hour laboratory periods. Prerequisite: Ch 203, or equivalent.</td>
<td></td>
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</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Ch 241—Chemical Theory</th>
<th>5 hours each term</th>
</tr>
</thead>
<tbody>
<tr>
<td>Service course covering chemical principles such as equilibrium and thermodynamics, etc.</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>GE 101</th>
<th>Engineering Orientation</th>
<th>2 hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>GE 101 is an extensive introduction to the nature of the engineering process of representation, optimization and design. The opportunities found in the field of engineering are introduced. Prerequisite: Mth 101 previously or concurrently.</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>GE 102</th>
<th>Engineering Orientation</th>
<th>2 hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>Engineering orientation GE 102 acquaints students with engineering analysis and develops skills in the areas of computation and graphical representation. Computer introduced. Prerequisite: Mth 101 previously or concurrently.</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>GE 103</th>
<th>Engineering Orientation</th>
<th>2 hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>Forers creative ability on design projects. Computer programming is used as an aid for problems common to all fields of engineering. Prerequisite: Mth 101 previously or concurrently.</td>
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</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>GE 104, 105, 106</th>
<th>Physical Science</th>
<th>4 hours each</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fundamental principles of physics, chemistry, astronomy, and geology; development and application of the scientific method. 3 lectures; 1 two-hour laboratory period. Prerequisite: One year of high school Algebra and/or consent of the instructor.</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Mth 100</th>
<th>Intermediate Algebra</th>
<th>4 hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>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. No credit allowed if taken after Mth 101 or any more advanced mathematics course.</td>
<td></td>
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</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Mth 101, 102</th>
<th>College Algebra and Trigonometry</th>
<th>4 hours each</th>
</tr>
</thead>
<tbody>
<tr>
<td>A modern treatment of algebra and trigonometry exhibiting the logical structure of the discipline. Including topics essential for subjects in mathematical study: i.e. sets, functions, real number systems, equations and inequalities, binomial theorem, logarithmic functions, trigonometric functions, etc. Prerequisite: two years of high school algebra or Mth 103.</td>
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</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Mth 104, 105, 106</th>
<th>Introductory College Mathematics</th>
<th>4 hours per term</th>
</tr>
</thead>
<tbody>
<tr>
<td>This is a unified course in Algebra, Trigonometry, and the Fundamentals of Calculus, designed as a terminal course for students of the liberal arts, social and behavioral sciences, or an introductory course for those students who decide to go on with the study of mathematics.</td>
<td></td>
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</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Mth 191, 192, 193</th>
<th>Mathematics for Elementary Teachers</th>
<th>3 hours per term</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mth 191, 192: A development of arithmetic as a logical structure. 193: A careful survey of state-adopted texts grade-by-grade, with careful attention given to the recognition of principles learned in the outline for Mth 191 and 192. Mathematics for Elementary Teachers is a requirement for majors in elementary education of Oregon State University.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Mth 200, 201, 202, 203</th>
<th>Calculus with Analytic Geometry</th>
<th>4 hours each</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Mth 233</th>
<th>Introduction to Numerical Computation</th>
<th>3 hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>Basic principles of numerical computation, programming a computer in subject oriented language, and emphasis on programming in an algebraic language. Prerequisite: Mth 101, or equivalent.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Phy 201, 202, 203</th>
<th>General Physics</th>
<th>4 hours per term</th>
</tr>
</thead>
<tbody>
<tr>
<td>A first year college physics course intended both for nonscience majors and students majoring in the life sciences and related areas. Concepts in mechanics, thermodynamics, sound, electromagnetism, light, relativity, quantum physics, and atomic and nuclear physics are developed from a fundamental approach. 4 lecture-discussion periods per week. Prerequisite: Mth 101, 102 or equivalent, or consent of the instructor. Corequisite: Enrollment in Phy 204, 205, 206.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Phy 204, 205, 206</th>
<th>Physics Laboratory</th>
<th>1 hour per term</th>
</tr>
</thead>
<tbody>
<tr>
<td>Laboratory experiences in mechanics, heat, electricity and magnetism, wave, wave motion, sound, light, and atomic physics. Intended primarily for students enrolled in General Physics or Engineering Physics but open to others with consent of the instructor. One 3 hour lab period per week.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Phy 207, 208, 209</th>
<th>Engineering Physics</th>
<th>4 hours per term</th>
</tr>
</thead>
<tbody>
<tr>
<td>A first year college physics course for students majoring in engineering or the physical sciences such as physics, chemistry, etc. Mechanics, wave motion, sound, thermodynamics, electromagnetism, light, relativity, quantum physics, atomic and nuclear physics, and relativity are covered in depth. 4 lecture-discussion periods per week. Prerequisite: previous or concurrent enrollment in an introductory course in calculus or consent of the instructor. Corequisite: enrollment in Phy 204, 205, 206.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Liberal Arts and Sciences Course Descriptions

Z 201, 202, 203 General Zoology
4 hours each
For zoology majors and premedical, pre dental, prenursing, prepharmacy students and others. 3 lectures; 1 three-hour laboratory period.

HEALTH AND PHYSICAL EDUCATION

HE 250 Personal Health
3 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, and nutrition. Satisfies the college requirement in health education for both men and women.

HE 252 First Aid
3 hours any term
Study of first aid and safety procedures—for the individual, schools, athletics, and other defense; meets standard and advanced certification of the American Red Cross.

PE 131 Introduction to Health and Physical Education
3 hours
Professional orientation; basic philosophy and objectives; professional opportunities and qualifications.

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.

PE 194 Professional Activities (Women)
2 hours each term
For professional students.

PE 195 Professional Activities (Men)
2 hours each term
For professional students. Methods, teaching techniques, and basic skills.

PE 294 Professional Activities (Women)
2 hours each term
For professional students. Methods, teaching techniques, and basic skills. Fall—tennis and badminton. Winter—volleyball and basketball. Spring—archery, bowling and golf.

PE 295 Professional Activities (Men)
2 hours each term
For professional students. Methods, teaching techniques, and basic skills. Fall—tennis and badminton. Winter—volleyball and basketball. Spring—archery, bowling and golf.

HOME ECONOMICS

HEC 101 Introduction to Home Economics
1 hour
An orientation course for Home Economics majors and nonmajors interested in developing a greater understanding of Home Economics as a profession. The course explores the philosophy, contributions, trends, and interdisciplinary nature of the field as well as the services to families. Employment opportunities and training and preparation required for the various areas within the fields are studied as are new developments in related career fields.

FN 225 Nutrition
3 hours
Study of nutrition and the newer scientific investigations, study of optimal diet for health; present day nutritional problems. For home economics majors, nursing students, physical education majors and food service majors.

CT 210 Clothing Construction
3 hours
Study of the principles of selection, construction and fitting with emphasis on management. Emphasis throughout the course is on decision making in relation to choices between construction methods and between ready-to-wear clothes and those made at home. Clothing construction as a creative expression is also recognized.

CT 211 Clothing Selection
3 hours
The course includes study of the artistic, economic and psychological factors affecting the selection of adult clothing. Designed for the student majoring in home economics and fashion merchandising. Also open to nonmajors.

FL 222 Marriage Preparation, 2 hours
2 Credits
Open to men and women. Marriage; nature and motives, marriage readiness. Courtship in mate selection.

FL 223 Family Living, 2 hours
2 Credits
Open to men and women. Marriage and relationships in the beginning family. A study and analysis of the social, physical, educational, economic, psychological and other factors on family behavior.

HUMANITIES, 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 be representative of 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 Blake and Keats; Spring: Wordsworth to Present.

Eng 104, 105, 106 Introduction to Literature
3 hours each term
A general course designed to prepare the student for furthering his study and appreciation and enjoyment of literature. The fall quarter will be concerned with fiction, novels, short stories, essays, and biographies; the winter quarter will be concerned with the drama, both ancient and modern; spring quarter will be concerned with poetry, lyric, pastoral, and epic. Although the major emphasis will be on English and American literature, European literature will be a part of the course.

Eng 107, 108, 109 World Literature
3 hours each term
Study of the literary and cultural foundations of the Western world through an 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 apply credits of any one of the above literature sequences toward the English sequence requirement.

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. Fall: Colonial period to Melville; Winter: Emerson to Henry James; Spring: Stephen Crane to present.
<table>
<thead>
<tr>
<th>Liberal Arts and Sciences Course Descriptions</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Phl 201 Problems of Philosophy</strong></td>
</tr>
<tr>
<td><strong>Phl 202 Elementary Ethics</strong></td>
</tr>
<tr>
<td><strong>Phl 203 Elementary Logic</strong></td>
</tr>
<tr>
<td><strong>Wr 111, 112, 113 English Composition</strong></td>
</tr>
<tr>
<td><strong>Wr 214 Business English</strong></td>
</tr>
<tr>
<td><strong>Wr 241, 242, 243 Introduction to Imaginative Writing</strong></td>
</tr>
<tr>
<td><strong>GL 50, 51, 52 First-Year German</strong></td>
</tr>
<tr>
<td><strong>GL 101, 102, 103 Second-Year German</strong></td>
</tr>
<tr>
<td><strong>J 215 Journalism Laboratory</strong></td>
</tr>
<tr>
<td><strong>J 216 Reporting I</strong></td>
</tr>
<tr>
<td><strong>J 217 Reporting II</strong></td>
</tr>
<tr>
<td><strong>J 218 Copy Editing and Makeup</strong></td>
</tr>
<tr>
<td><strong>RI. 50, 51, 52 First-Year French</strong></td>
</tr>
<tr>
<td><strong>RL 101, 102, 103 Second-Year French</strong></td>
</tr>
<tr>
<td><strong>Anth 101, 102, 103 General Anthropology</strong></td>
</tr>
<tr>
<td><strong>Anth 207, 208, 209 Introduction to Cultural Anthropology</strong></td>
</tr>
<tr>
<td><strong>Ec 201, 202, 203 Principles of Economics</strong></td>
</tr>
<tr>
<td><strong>Geog 105, 106, 107—Introductory Geography</strong></td>
</tr>
<tr>
<td><strong>Hist 101, 102, 103 History of Western Civilization</strong></td>
</tr>
<tr>
<td><strong>Hist 201, 202, 243 History of the United States</strong></td>
</tr>
<tr>
<td><strong>PS 201, 202, 203 American Government</strong></td>
</tr>
<tr>
<td><strong>PS 205 International Relations</strong></td>
</tr>
<tr>
<td><strong>Psy 111 Personality and Development</strong></td>
</tr>
<tr>
<td><strong>Psy 201, 202, 243 General Psychology</strong></td>
</tr>
<tr>
<td><strong>Soc 204, 205, 206 General Sociology</strong></td>
</tr>
</tbody>
</table>
Academic Regulations

CREDITS

The academic year consists of three quarters of approximately 12 weeks each. Each hour of credit usually indicates one hour of class per week during an entire quarter. Laboratory and activity courses usually require more than one hour of attendance per credit hour. The standard student load is 15 or 16 credit hours per quarter. To complete the 93 credits required for the Associate in Arts degree in two years, a student must average 15 credits per quarter. While the unit requirements for the Associate in Science degree vary in the different curricula, the average number of units required is 96. In order to complete 96 units in two years, a student must average 16 units per quarter. Permission to take a load of more than 16 credits will depend upon previous academic records, outside employment, and other factors.

GRADING

The evaluation of a student's work is based upon a system of grades. A grade report is issued to the student each quarter after he completes his final examinations and after his credentials and financial obligations to the college are in order:

<table>
<thead>
<tr>
<th>Grade Interpretation</th>
<th>Grade Points</th>
</tr>
</thead>
<tbody>
<tr>
<td>A Honor</td>
<td>4 grade points per credit hour</td>
</tr>
<tr>
<td>B Above average</td>
<td>3 grade points per credit hour</td>
</tr>
<tr>
<td>C Average achievement</td>
<td>2 grade points per credit hour</td>
</tr>
<tr>
<td>D Low passing</td>
<td>1 grade point per credit hour</td>
</tr>
<tr>
<td>F Failure to meet course requirements</td>
<td>0 grade points per credit hour</td>
</tr>
<tr>
<td>W Withdrawal</td>
<td>(If not completed during the following quarter of attendance, or by special arrangement with the instructor, &quot;W&quot; remains on the records).</td>
</tr>
<tr>
<td>I Incomplete</td>
<td>0 grade points</td>
</tr>
<tr>
<td>S Satisfactory</td>
<td>0 grade points</td>
</tr>
<tr>
<td>U Unsatisfactory</td>
<td>0 grade points</td>
</tr>
</tbody>
</table>

The grade point average is determined by dividing the total grade points earned by the number of quarter hours attempted. W, I, X, S, and U grades and credits are not included in calculating the grade point average. Two examples of grade point average (GPA) computation follow:
Academic Regulations

CHANGE OF GRADE
When it is necessary for any reason to change a grade, the instructor obtains three "Supplementary Grade Report" cards from the Admissions Office. After cards have been completed, the instructor returns them to the Admissions Office in person. One is kept on file, one is mailed to the student, and one is retained by the instructor.

The instructor involved in a course for which a grade change is necessary is responsible for initiating the change. The student will receive notification of the recorded change by mail.

COURSE NUMBERING
Liberal Arts transfer courses in the college catalog are numbered in accordance with courses throughout the State System of Higher Education. 100-110 Courses which carry no credit toward a degree.

111-199 Beginning courses in subjects taught in high school which carry credit toward a bachelor's degree.

100-200 Survey or foundation courses that satisfy group requirements.

200-310 in the language and literature, science, and social science groups.

111-199 Other courses offered at first-year and second-year level.

211-299 Normally, 100-199 numbers are considered freshman courses, and 200-299 are considered sophomore courses.

93 CREDIT LIMITATION
Institutions of the State System of Higher Education in Oregon will accept no more than 93 credits earned as a lower division student to apply toward the baccalaureate degree requirements. The limit of 93 applies, regardless of whether the credits were earned entirely at a community college or earned in various accredited institutions. Students who wish to secure more than 93 credits prior to their transfer to a senior institution in Oregon should obtain the advice of the registrar of the specific institution to which the student intends to transfer. Such advice should be obtained before the credits in excess of 93 are earned.

EXAMINATIONS
A final examination is a part of a course. Students are required to take the final examinations at the scheduled time in order to complete the course and receive credit.

SCHOLASTIC STATUS
Honor Roll: A student who earns 12 or more credits and/or units in a quarter at SWOCC with a grade point of 3.50 or above will be placed on the honor roll for that quarter. Students carrying 12 or more credits and/or units whose grade point is 3.00 or above but less than 3.50, without any failing grades, will be placed on the dean's honor roll.

Academic Probation: Any student who has completed three or more quarters in the college and whose cumulative grade point average is below 2.00 shall be placed on academic probation. Any student who has completed more than two quarters at the college shall be placed on probation when his cumulative grade point average is below 1.80. Students shall be notified as soon as possible when placed on probation. Such action is noted on the student's official academic record.

Removal from Academic Probation: A student on academic probation will be removed from probation at the end of any quarter in which his cumulative grade point average reaches 2.00 or better.

Suspension for Low Scholarship: Any student on academic probation will be suspended if he fails to attain a 2.00 cumulative average at the end of two subsequent quarters after being placed on probation.

Reinstatement of Suspended Students: Any suspended student may petition the Academic Standards Committee for reinstatement to the college. Any student so reinstated will have probationary status. Such a student will be dropped: (1) if he fails to attain a 2.00 for the following quarter's work, or (2) if he fails to attain a 2.00 cumulative average at the end of two quarters subsequent to reinstatement. He will be removed from probation at the end of the quarter in which his cumulative grade point average reaches 2.00 or better. Students who have shown marked improvement in their grades prior to suspension are encouraged to petition for reinstatement.

Transfer Students: In determining a transfer student's academic status, the previous record is evaluated as though it had been earned at Southwest Oregon Community College.

Physical Education Requirements: A student intending to obtain an Associate in Arts degree must take five terms of Physical Education. Although five terms are required, not more than one hour of credit per term in the area of the Head of the Physical Education Department (PE 180-191) is recommended. Exceptions must be approved by both the student's advisor and the Head of the Health and Physical Education Department.

Physical Education majors should seek advice from the members of the P.E. Department in working out their schedules. Exemptions are allowed for the following reasons:

1. Health — If a physician recommends exemption and a written statement is filed with the Admissions Office. This must be done at the beginning of each term.

2. Age — If students are over 50 years of age, they may be exempted from the graduation of the Head of the Physical Education Department. If they are between 35 and 50 years of age, at least three
Academic Regulations

requirements of Physical Education are required; the other two terms may be waived by the Head of the Physical Education Department.

3. Veterans— Students who have completed six months of active military service in the Armed Forces of the United States are exempt from three terms of the Physical Education requirement. To qualify for exemption, such students must file official documentary evidence of their service with the Admissions Office.

4. Other— On very rare occasions an exemption may be granted for other reasons. A petition should be made to the Academic Standards Committee.

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 may participate fully in the activities of the class. If audit is desired, it should be so indicated at the time of registration. With permission of the instructor, a student may enter a course for audit at any point during the term which he deems it of value to participate in the course. If a student wishes to add a course for audit or change his registration from credit to audit after the second week of the term, he may do so by completing the "drop-add" form, obtaining the instructor's initials, and returning the form to the Admissions Office.

CHANGE OF REGISTRATION
For two weeks after start of classes, a student may drop courses, add courses, and change from credit to audit or audit to credit by completing a drop-add form and filing it in the admission office. Students should check the academic calendar for drop-add deadlines and should check schedule of fees for possible fee changes.

SELECTIVE SERVICE
To be certified as a "full-time" student for Selective Service purposes, a student must progress at a rate that will insure his completion of 93 credit hours within two academic years. This means that he must average 16.5 credits or units per term. For certification as a sophomore at the beginning of his second year, a student must have completed 45 credits or units during his first year. It is the student's responsibility to make any request of his local Selective Service System Board for change of classification. He should notify the Admissions Office of any materials he wishes to have sent to the local board for their consideration. It is the student's responsibility to inform his local board immediately of any change in his school program that would affect his status with the Selective Service System.

Degrees and Requirements

DEGREES
Southwestern Oregon Community College awards two degrees—Associate in Arts and Associate in Science. The following degrees may be awarded (by application and subject to approval by the Dean of Instruction): THE ASSOCIATE IN ARTS to those students who complete the requirements of the lower-division liberal arts program.

THE ASSOCIATE IN SCIENCE to those students who complete the requirements of a departmental curriculum when such requirements represent the completion of an organized two-year program.

Certificate of Completion may be awarded to those students who complete the requirements of some less-than-degree curriculum. For persons completing degree requirements at the end of summer, fall, or winter term rather than at June commencement time, Associate in Science and Associate in Arts degrees will be conferred three weeks from the date that requirements have been met in order to receive a degree at these times, previous application must be filed with the Registrar. The degree will be awarded by means of a letter, and diplomas will be mailed during June following the awarding of the degree.

Requirements completed in summer, fall, or winter term for Certificate of Completion for some less-than-degree curriculum will be awarded in the same manner.

The cost for the diploma will be the regular fee of $5.00.

APPLICATION FOR DEGREES
Candidates must apply for degrees and certificates through the Admissions Office. Applications should be made during winter term if the degree or certificate is to be conferred at the June commencement.

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 (WR. 111, 112, 113).
4. Health Education: HE 250, 3 term hours for both men and women.
5. Physical Education: 5 terms are required. Not more than one hour of credit may be earned in these courses in any one term except by petition and consent. Although five terms are required, not more than one hour of credit per term in activity courses (PE

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Degrees and Requirements

180-190) is recommended. Exceptions must be approved by both
the student's advisor and the head of the Health and Physical
Education Department.

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" on
page 28.

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" referred to in No. 6 above, if taken in one
of the Social Sciences or Sciences, must be taken in a different
department.

10. A student must attend Southwestern Oregon Community 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.

ASSOCIATE IN SCIENCE DEGREE
The Associate in Science Degree is offered by many technical schools
and colleges in all parts of the United States. It is a recognized degree
and is approved by the Oregon Board of Education.

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
subject.
4. Must attend the College at least two terms (including the last
term) before degree is awarded, and must have completed 24 units
at the College.

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

Language and Literature

<table>
<thead>
<tr>
<th>Language and Literature</th>
<th>3 hrs each</th>
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</thead>
<tbody>
<tr>
<td>Eng 104, 105, 106</td>
<td>Introduction to Literature</td>
</tr>
<tr>
<td>Eng 201, 202, 203</td>
<td>Shakespeare or</td>
</tr>
<tr>
<td>Eng 253, 254, 255</td>
<td>Survey of American Literature</td>
</tr>
</tbody>
</table>

Languages (Applicable as a second literature sequence)

<table>
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<tr>
<th>Languages</th>
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<tbody>
<tr>
<td>RL 101, 102, 103</td>
<td>Second-Year French</td>
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<tr>
<td>GL 101, 102, 103</td>
<td>Second-Year German</td>
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General Science

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<tr>
<th>General Science</th>
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<tbody>
<tr>
<td>GS 104, 105, 106</td>
<td>Physical Science Survey</td>
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Biology

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<tr>
<td>Bi 101, 102, 103</td>
<td>General Biology</td>
</tr>
<tr>
<td>Botany</td>
<td>4 hrs each</td>
</tr>
<tr>
<td>Bot 201, 202, 203</td>
<td>General Botany</td>
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</table>

Chemistry

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<tbody>
<tr>
<td>Ch 104, 105, 106</td>
<td>Elementary Chemistry</td>
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<tr>
<td>Ch 201, 202, 203</td>
<td>General Chemistry</td>
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Mathematics

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</thead>
<tbody>
<tr>
<td>Mth 101, 102, 200</td>
<td>College Algebra, Trigonometry and Calculus</td>
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</tbody>
</table>

Mth 201, 202, 203 | Calculus with Analytic Geometry second year | (any three of this group) | 4 hrs each |

Physics

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<tbody>
<tr>
<td>Ph 201, 202, 203</td>
<td>General Physics</td>
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Zoology

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<tr>
<td>Z 201, 202, 203</td>
<td>General Zoology</td>
</tr>
</tbody>
</table>

Social Science

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<tr>
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<th>Hrs</th>
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<tbody>
<tr>
<td>Anthropology</td>
<td>3 hrs each</td>
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<tr>
<td>Anth 101, 102, 103</td>
<td>General Anthropology</td>
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<tr>
<td>Anth 207, 208, 209</td>
<td>Introduction to Cultural Anthropology</td>
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Economics

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<tr>
<td>Ec 201, 202, 203</td>
<td>Principles of Economics</td>
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Geography

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<td>Geog 106, 106, 107</td>
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History

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<td>Hist 101, 102, 103</td>
<td>History of Western Civilization</td>
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<tr>
<td>Hist 201, 202, 203</td>
<td>History of the United States</td>
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Political Science

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<tbody>
<tr>
<td>Ps 201, 202, 203</td>
<td>American Government</td>
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Psychology

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<tbody>
<tr>
<td>Psy 201, 202, 203</td>
<td>General Psychology</td>
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Sociology

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<th>Sociology</th>
<th>Hrs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Soc 204, 205, 206</td>
<td>General Sociology</td>
</tr>
</tbody>
</table>
Anderson, John B., B.S.E.E.; Assistant Professor, Technical-Vocational Education; B.S.E.E. (1960), Oregon State University. Registered Electrical Engineer. Approved Vocational Instructor.

Anderson, Phillip M., M.A.; Coordinator of Student Activities, Assistant Professor of English; A.A. (1962), Monterey Peninsula College; B.A. (1964), M.A. (1966), San Francisco State College.

Andrews, Wayne, Associate Professor of Industrial Mechanics. Approved Vocational Instructor.

Barber, Rodger; Instructor of Industrial Mechanics. Approved Vocational Instructor.

Bates, Dale J., M.S.; Assistant Professor of Health and Physical Education, and Director of Athletics; B.S. (1953), Southern Oregon College; M.S. (1965), University of Oregon.

Baxter, Bryce, M.S.; Assistant Professor of Mathematics; B.S. (1956), Eastern Oregon College; M.S. (1962), Oregon State University.

Brookins, Jack E., M.Ed.; Professor and President of the College; B.Ed. (1959); M.Ed. (1954), Colorado State University.


Burdg, Donald E., M.S.; Associate Professor of Mathematics; B.S. (1951), Colorado State University; M.A. (1952), Colorado State College; M.S. (1966), Oregon State University.


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

Cumpston, Sam E., M.S., Associate Professor of Mathematics and Physics. B.S. (1942) U. S. Military Academy, West Point; M.S. (1948) University of Chicago.


Dibble, Robert J., M.S.; Assistant Professor of Psychology and Counseling; A.B. (1949), Colorado College; Th.M. (1952), Iliff School of Theology; M.A. (1955), Whitworth College; M.S. (1966), Eastern Washington State.

Donelson, Halleck L., M.S.; Assistant Professor of Physical Science; B.A. (1941), Linfield College; M.S. (1964), A & T College of North Carolina.


Eliberson, Stanley D., Ph.D.; Associate Professor of Speech and Drama; B.A. (1951); B.E. (1953), Pacific Lutheran University; M.S. (1962), University of Utah; Ph.D. (1968), University of Oregon.

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

Ferguson, Helen W., Assistant Professor of Business. Approved Business Instructor.

Ferguson, James E., M.A.; Assistant Professor of Geography; B.A. (1964); M.A. (1965), Oregon College of Education.

Goetschelck, Phillip; Assistant Professor of Industrial Mechanics. Approved Vocational Instructor.

Goldberg, Shirley E., M.A.; Assistant Professor of English; B.A. (1945), Reed College; M.A. (1951), University of California.


Haley, Tenison, D.Ed.; Associate Professor of Psychology, and Dean of Student Services; B.S. (1954), Washington University; M.Ed. (1958); D.Ed. (1963), University of Oregon.

Hall, Howard A., M.F.A.; Associate Professor of Fine Arts; B.S. (1949); M.F.A. (1951), University of Oregon.

Haug, Greta, M.S.Ed.; Assistant Professor of English; B.A. (1956) Pacific University; M.S.Ed. (1963), University of Oregon.

Horning, William, M.S.; Assistant Professor of Health and Physical Education and Cross Country, Wrestling, and Baseball Coach; B.S. (1956), University of Minnesota; M.S. (1964), St. Cloud State.

Hoyt, Hugh, Ph.D.; Professor of History; A.B. (1951); M.A. (1953), Sacramento State College; Ph.D. (1969), University of Oregon.

Humphrey, Thomas, M.S.; Associate Professor of English and Literature; B.S. (1959); M.S. (1961), University of Oregon.
Hunter, John G., M.Ed.; Instructor in Psychology and Counselor, Coordinator of Admissions; B.S. (1964), Oregon State University; M.Ed. (1967), University of Oregon.

Kemper, Beverly, M.Ed.; Assistant Professor of Health and Physical Education; B.S. (1958); M.Ed. (1965), Oregon State University.

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

Land, Alfred M., Jr., M.S.; Assistant Professor of Business and Technology; B.S. (1958); M.S. (1962), University of Oregon. Approved Vocational Instructor.

Lemoine, Norman W., M.S.; Instructor in Forestry; B.S. (1961), University of Massachusetts; M.S. (1967), University of Minnesota.

Leuck, Frank, M.M.; Assistant Professor of Music; B.S. (1951), Lewis & Clark; M.M. (1951), Eastman School of Music.

Loeber, Thomas S., M.S.; Assistant Professor of Political Science; B.A. (1948), Pomona College; M.S. (1950), University of Massachusetts; M.S. (1963), University of California at Los Angeles.

Love, James O., M.A.; Assistant Professor of Business; A.A. (1957), East Los Angeles Junior College; B.A., (1961); M.S. (1967), San Francisco State College.


Meacham, Bernell, M.S.; Assistant Professor of English and Journalism; B.S. (1941), Utah State University; M.S. (1943), Northwestern University. (On Sabbatical leave 1970-71).

Moffitt, Donald R., M.Ed.; Associate Professor of Business; B.S. in Commerce (1960), Ferris State College; M.Ed. (1964), Oregon State University. Approved Vocational Instructor.

Muller, Erik, M.A.; Assistant Professor of English; B.A. (1962) Williams College; M.A. (1965) University of Oregon.

Murray, Nicholas, M.A.; Assistant Professor of English; B.A. (1963) Grinnell College; M.A. (1965) University of Washington.

Piercey, James R., M.Ed.; Associate Professor, Assistant Dean of Instruction and Director of Vocational Education; B.S. (1959), Western Washington College; M.Ed. (1967), University of Washington.

Publicover, Vanda R., M.S.; Assistant Professor of English; B.A. (1954), M.S. (1955), University of Oregon.

Rulfison, John R., Ph.D.; Professor of History and Dean of Instruction. B.A. (1953), University of Portland; M.A. (1957) University of Washington; Ph.D. (1967), University of Washington.

Ryan, Philip, M.A.; Associate Professor and Coordinator of Data Processing Computer Center; B.S. (1944), University of Missouri; B.A. (1950); M.A. (1953), University of Denver.

Sharp, William W., M.B.A.; Assistant Professor of Business; B.A. (1959), University of Maryland; M.B.A. (1962), University of Oregon. Approved Vocational Instructor.

Shumake, James M., M.S.; Assistant Professor of Biology; A.A.S. (1962), Orange County Community College; B.S. (1964), Florida State University; M.S. (1966), Oregon State University.

Simmons, Jack Lee, M.S.; Instructor in Physics; B.S. (1960), University of Washington; M.S. (1966), Seattle University.

Smith, David E., M.A.; Assistant Professor of Music and French; B.A. (1950), Middlebury College; M.A. (1965), University of San Francisco.

Sorenson, Vernon C., M.A.; Associate Professor of Languages; B.A. (1947), University of Utah; M.A. (1965), University of Oregon.

Stender, Veneta, B.S.; Assistant Professor of Home Economics; B.S. (1955), University of Idaho; M.S. (1969), Oregon State University. Approved Vocational Instructor.

Stubbs, Ronald D., M.A.; Assistant Professor of Anthropology and Sociology; B.A. (1965); M.A. (1966), University of Montana.

Swearingen, Jack H., Ph.D.; Professor of English; B.A. (1947); M.A. (1954); Ph.D. (1968), University of Texas.

Toribio, Andres P., M.S.; Assistant Professor of Mathematics; B.S. (1959), University of Oregon; M.S. (1969), Oregon State University.

Williams, Dortha A., M.L.; Assistant Professor of Librarianship; B.A. (1958) West Texas State University; M.L. (1967) University of Washington.

Part-time Faculty

Alto, Victor; Instructor, Carpenter Apprentice. Approved Vocational and Adult Instructor.

Ames, Darrel; Instructor, Accounting. Approved Vocational and Adult Instructor.

Arbus, William; Instructor, Biology. Approved Vocational and Adult Instructor.

Arrambide, Anthony; Instructor, Conversational Spanish. Approved Vocational and Adult Instructor.

AuviL, Carroll; Instructor, Electronics. Approved Vocational and Adult Instructor.

Barnes, Mary; Instructor, Home Economics (Nutrition). Approved Vocational and Adult Instructor.

Bartholomew, Edward; Instructor, Supervision. Approved Vocational and Adult Instructor.

Baumgartner, James; Instructor, Business (Income Tax Workshop). Approved Vocational and Adult Instructor.

Bennett, Steve; Instructor, Law Enforcement. Approved Vocational and Adult Instructor.

Britton, Thomas; Instructor, Drafting. Approved Vocational and Adult Instructor.

Bruce, Carol B.; Instructor, Home Economics. Approved Vocational and Adult Instructor.

Burdon, Richard F.; Instructor, General Agriculture. Approved Vocational and Adult Instructor.

Conrad, Dale; Instructor, Spanish. Approved Vocational and Adult Instructor.

Dedmon, William; Instructor, Industrial Mechanics. Approved Vocational and Adult Instructor.

Dollowitch, Patricia J.; Instructor, Music. Approved Vocational and Adult Instructor.

Doty, Irwin; Instructor, Business. Approved Vocational and Adult Instructor.

Estes, Arthur J.; Instructor, Judo, Law Enforcement. Approved Vocational and Adult Instructor.

Farr, Donald; Instructor, Business (Retail). Approved Vocational and Adult Instructor.

Freeman, Frank; Instructor, Supervision. Approved Vocational and Adult Instructor.

Freeman, Wayland; Instructor, Plumbing Apprentice. Approved Vocational and Adult Instructor.

Gant, Virginia; Instructor, Physical Education (Creative Dance). Approved Vocational and Adult Instructor.

Gleaves, William; Instructor, Business (Securities & Investing). Approved Vocational and Adult Instructor.

Greenlund, Mary Anne; Instructor, Home Economics. Approved Vocational and Adult Instructor.

Grey, Donald; Instructor, Art. Approved Vocational and Adult Instructor.

Higgs, James D.; Instructor, Aviation Ground School. Approved Vocational and Adult Instructor.

Hutchinson, Robert; Instructor, Sheetmetal Apprentice. Approved Vocational and Adult Instructor.

Johnson, Evalyn; Coordinator, Reedsport. Approved Vocational and Adult Instructor.

Johnson, Oscar; Instructor, Supervision. Approved Vocational and Adult Instructor.

Johnson, JoAnn; Instructor, Business. Approved Vocational and Adult Instructor.

Jones, Duncan; Instructor, Power Lineman Apprentice. Approved Vocational and Adult Instructor.
Part-time Faculty

Karl, Margaret; Instructor, Art. Approved Vocational and Adult Instructor.

Kelley, Raymond; Instructor, Mathematics. Approved Vocational and Adult Instructor.

Kiander, Dolores; Instructor, Physical Education (Swimming). Approved Vocational and Adult Instructor.

Kraus, William; Instructor, Mathematics. Approved Vocational and Adult Instructor.

Lansing, William; Instructor, Wood Industries Technology. Approved Vocational and Adult Instructor.

Leven, James; Instructor, Conversational Japanese. Approved Vocational and Adult Instructor.

Leake, Nancy; Instructor, Business. Approved Vocational and Adult Instructor.

Lee, Walter S.; Instructor, Law Enforcement. Approved Vocational and Adult Instructor.

Leegard, Ellsworth J.; Instructor, Welding. Approved Vocational and Adult Instructor.

Lesan, Jerry; Instructor, Law Enforcement. Approved Vocational and Adult Instructor.

Lorence, Kay; Instructor, Basic Education. Approved Vocational and Adult Instructor.

Ludlow, Stanley; Instructor, Physical Education. Approved Vocational and Adult Instructor.

Lundholm, Yvonne; Instructor, Business. Approved Vocational and Adult Instructor.

Maurer, Geraldine; Instructor, Physical Education (Swimming). Approved Vocational and Adult Instructor.

McKnight, Diane; Instructor, Home Economics. Approved Vocational and Adult Instructor.

Moehl, Martha; Instructor, Biology Lab Assistant. Approved Vocational and Adult Instructor.

Morton, Jacqueline; Coordinator, Coquille. Approved Vocational and Adult Instructor.

Muir, Andrew; Instructor, Electrical Apprentice. Approved Vocational and Adult Instructor.

Ormsbee, Orrin; Instructor, Business. Approved Vocational and Adult Instructor.

Oxford, Lydia M.; Instructor, Driver Education. Approved Vocational and Adult Instructor.

Schwarz, Ed; Instructor, Wood Industries Technology. Approved Vocational and Adult Instructor.

Shaw, Audrey; Instructor, Advertising. Approved Vocational and Adult Instructor.

Spaugh, Sara; Instructor, Art. Approved Vocational and Adult Instructor.

Stoll, Eli; Instructor, Automotive Mechanics. Approved Vocational and Adult Instructor.

Vanderhoof, George; Instructor, Welding. Approved Vocational and Adult Instructor.

Vaughan, Dorothy; Instructor, Home Economics. Approved Vocational and Adult Instructor.

Wehrle, Clare; Instructor, Art. Approved Vocational and Adult Instructor.

Wilson, Clotis; Instructor, Progressive Helper. Approved Vocational and Adult Instructor.

Wirth, E.; Instructor, Art (Ceramics). Approved Vocational and Adult Instructor.

Wright, Norman; Instructor, Electrical Apprentice. Approved Vocational and Adult Instructor.

Zarbano, Sebastiano; Instructor, Law Enforcement. Approved Vocational and Adult Instructor.
Oregon’s Community College System

Community colleges in the State of Oregon now number 12. To learn of the opportunities offered at the other community colleges, we remind you that catalogs for these schools are available in the Office of Student Services in Dellwood Hall, the administration building.

DIRECTORY

BLUE MOUNTAIN COMMUNITY COLLEGE
2410 N.W. Garden Ave.
Box 100, Pendleton 97801
Phone: 276-1166

MT. HOOD COMMUNITY COLLEGE
26000 S.E. Stark
Gresham 97020
Phone: 665-1131

CENTRAL OREGON COMMUNITY COLLEGE
College Way
Bend 97701
Phone: 382-6112

PORTLAND COMMUNITY COLLEGE
12000 S.W. 49th Ave.
Portland 97219
Phone: 224-3040

CLACKAMAS COMMUNITY COLLEGE
270 Warner Milne Road
Oregon City 97045
Phone: 555-0675

CHEMEKETA COMMUNITY COLLEGE
4389 Satter Drive N.E.
Salem 97303
Phone: 585-6166

CLATSOP COMMUNITY COLLEGE
16th and Jerome
Astoria 97103
Phone: 325-0910

SOUTHWESTERN OREGON COMMUNITY COLLEGE
Cocoa Bay 97420
Phone: 888-3234

LANE COMMUNITY COLLEGE
4000 E. 30th Ave.
Eugene 97405
Phone: 747-4501

TREASURE VALLEY COMMUNITY COLLEGE
650 College Boulevard
Ontario 97914
Phone: 889-6493

LINN-BENTON COMMUNITY COLLEGE
203 W. First Avenue
Albany 97321
Phone: 926-6092

UMPQUA COMMUNITY COLLEGE
Box 967
Roseburg 97470
Phone: 672-5571
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