The College of Health Science is organized and dedicated to provide a stimulating and challenging environment in which students can gain the professional, technical, and liberal arts foundation to prepare them for life-long service and training.

Coursework leading to baccalaureate and associate degrees is offered in several health care professional programs. Preprofessional coursework and advising are also provided for those students who need undergraduate studies in order to qualify for medical or other professional schools. The school also recognizes the responsibility of providing continuing education to its graduates and to other health care practitioners.

Faculty of the school have the required academic degrees and are registered or certified as practitioners in the areas in which they teach. Hospitals, clinics, government agencies, and a variety of health care practitioners afford the necessary patients, professional support and clinical facilities which are required to complement the classes and laboratories at the university.

Cooperating Agencies

AT&T
Boise Samaritan Village, Boise, Idaho
Booth Memorial Home (Salvation Army), Boise, Idaho
Central District Health Department, Boise, Idaho
Community Home Health, Boise, Idaho
El Ado Head Start, Boise, Idaho
Grand Oaks Healthcare, Boise, Idaho
Hillcrest Care Center, Boise, Idaho
Idaho Elks Rehabilitation Hospital, Boise, Idaho
Idaho Veterans Nursing Home, Boise, Idaho
Independent School District of Boise City, Boise, Idaho
Intermountain Hospital, Boise, Idaho
Kootenai Memorial Hospital, Coeur d'Alene, Idaho
Magic Valley Regional Medical Center, Twin Falls, Idaho
Mercy Medical Center, Nampa, Idaho
Missoula Community Hospital, Missoula, Montana
University/Community Health Sciences Association, Inc.

The University/Community Health Sciences Association, Inc., is a non-profit corporation chartered by the State of Idaho for educational and charitable purposes, and to otherwise serve the University. The objectives of the Association are to promote optimum health services for the community through excellence in health professional education, to promote the growth and development of the College of Health Science at Boise State University and its constituent educational programs, departments, and activities, and to encourage donations of funds and gifts to assist in carrying out these objectives.

The present officers and members of the Board of Directors of the Association are:

- M.M. Burkholder, M.D., President
- Mr. James A. Goff, Vice President
- Donald L. Pape, D.D.S., Secretary
- Mr. Armand Bird, Treasurer

Ex-officio Directors: Presidents of Ada County Medical Society; District 31 of Idaho Nurses Association.

Information may be obtained by contacting the Dean of the College of Health Science at (208) 385-1678.

Department of Community and Environmental Health

Math/Geology Building, Room 110
Telephone (208) 385-3929

Acting Chairman and Associate Professor: Elaine M. Long; Professor: Eldon Edmundson.

Degrees Offered

- BS in Environmental Health
- BS in Health Science
- Non-degree Program in Pre-Dietetics

Department Statement

Students in this Department study general aspects of human health which are affected by personal, social, and environmental conditions and interaction. Personal health conditions, the interrelationships between personal health and environmental conditions, and existing and future community health programs are all considered.

Career opportunities for graduates are as follows:

- Environmental Health
  - Employment with public health agencies
  - Employment with industries
  - Employment with local planning and zoning agencies
  - Attend graduate school in various science disciplines
  - Attend a professional school in Medicine or other health discipline
- General Health Science Studies
  - Employment with public health planning agencies
  - Attend a graduate school in various science disciplines
  - Attend a health professional school in Medicine or other health discipline
  - Attend Medical or Medical Technology school.
  - Employment with pharmaceutical companies.
- Employment with community clinics and hospitals.

Faculty in the department also advise students who are interested in a health care career but have not yet decided which discipline to enter.

The Department of Community and Environmental Health is affiliated with local, state and federal health agencies throughout the State in order to provide field training.

Special Information for Students

Environmental Health

Advisors: Edmundson, Small

Environmental Health Specialists play an important role in assisting communities to ensure a healthful environment. Specific activities may include helping private businesses and public agencies maintain sanitary conditions in food establishments, in recreational facilities, and in public and private water supplies. Other activities may include assisting communities in properly disposing of toxic and other wastes, pest control, minimizing community air, water, and noise pollution, and assisting businesses in promoting safe and healthful working conditions.

The Environmental Health curriculum provides a broad background in understanding public health problems and in working with people effectively to arrive at solutions to these problems. During the first two years students take general college education courses. These may be taken at BSU or at other accredited 2 or 4-year colleges or universities, with transfer to BSU for the junior and senior years. Students must also spend twenty hours with environmental health agencies prior to beginning their upper level Environmental Health courses. The upper division student must complete an internship with public health agencies.

Health Science Studies

Advisors: Ashworth, Edmundson, Long, Poshek, Vahey

The Bachelor of Science degree in Health Science Studies provides a curriculum for students who wish to gain an education in Health Science Studies as a foundation for additional professional or graduate work in several health science professions, (for example: Medicine, Dentistry, Hospital Administration, Medical Technology). Employment with public health agencies or institutions is also an option. Undecided Health Science majors can use the curriculum to obtain the beginning courses until they decide on a major. Those students should work closely with their advisor to ensure that proper beginning courses are taken to meet these other degree requirements.

Pre-Dietetics Program

Advisor: Long

Boise State University does not offer a Bachelor of Science degree in Dietetics. However, Boise State University faculty will advise students who want to take the basic courses at Boise State and transfer to another university to complete the Bachelor of Science requirements.
Degree Requirements

ENVIRONMENTAL HEALTH Bachelor of Science Degree

1. General Requirements (30 credits):
   - English Composition E 101-102 .................................. .6
   - Psychology P 101 .................................................... .3
   - Sociology SO 101 .................................................... .3
   - Speech CM 111 .................................................... .3
   - Area II Core Elective ............................................... .3

2. Professional Requirements:
   - Area I Core Requirements: ........................................ ...
   - English Composition E ............................................. .
   - Area III Core and Science Requirements: ......................... ...
   - Health Science Electives: ......................................... ...

3. Suggested Electives (11 credits):
   - Pathogenic Bacteriology B 310 .................................... .4
   - Human Physiology Z 401 ........................................... .4
   - Mathematics EC 201 ................................................ .3
   - Biochemistry B 301 ................................................ .3
   - General Physics PH 101 ............................................. .8
   - Bacteriology B 303 ................................................ .5
   - Botany-Zoology BT 130, Z 130 ................................... .9
   - Applied & Environmental Microbiology B 415 ..................... .4
   - Entomology Z 305 ................................................ .4
   - Health Sciences [24 credits]: Water Supply and Water Quality Management EH 310 .................. .3
   - Air Quality Management EH 380 .................................. .2
   - Community Environmental Health Management EH 320 .......... .3
   - Public Health Administration H 304 ................................ .3
   - Public Health Law H 425 ......................................... .3
   - Internship EH 493 ................................................ .4
   - Occupational Safety & Health EH 415 ............................ .4
   - Epidemiology H 480 ................................................ .4
   - Environmental Health Practicum EH 160 ........................... .1
   - Other (6 credits): Technical Writing E 202 ...................... .3
   - Communication, Sociology or Psychology Elective ............... .3

3. Suggested Electives (11 credits):
   - Pathogenic Bacteriology B 310 .................................... .4
   - Human Physiology Z 401 ........................................... .4
   - Economics EC 201 ................................................ .3
   - Biochemistry B 301 ................................................ .3
   - General Physics PH 101 ............................................. .8
   - Bacteriology B 303 ................................................ .5
   - Botany-Zoology BT 130, Z 130 ................................... .9
   - Applied & Environmental Microbiology B 415 ..................... .4
   - Entomology Z 305 ................................................ .4
   - Health Sciences [24 credits]: Water Supply and Water Quality Management EH 310 .................. .3
   - Air Quality Management EH 380 .................................. .2
   - Community Environmental Health Management EH 320 .......... .3
   - Public Health Administration H 304 ................................ .3
   - Public Health Law H 425 ......................................... .3
   - Internship EH 493 ................................................ .4
   - Occupational Safety & Health EH 415 ............................ .4
   - Epidemiology H 480 ................................................ .4
   - Environmental Health Practicum EH 160 ........................... .1
   - Other (6 credits): Technical Writing E 202 ...................... .3
   - Communication, Sociology or Psychology Elective ............... .3

HEALTH SCIENCE Bachelor of Science Degree

1. English Composition E 101-102 .................................. .6
2. Area I Core Requirements ........................................... .12
3. Area II Core Requirements .......................................... .12
4. Area III Core and Science Requirements: 22-23 College Chemistry C 131-134 ...
   - Essentials of Chemistry C 107-110 ................................ .9
   - Mathematics M 111 ................................................ .5
   - General Zoology and General Botany Z 130 and BT 130 ........ .5
   - Human Anatomy and Physiology Z 111-112 ........................ .9 or 8
5. Health Science Requirements: 16 Introduction to Computers in Health Science H 120 ...
   - Health Delivery Systems H 202 .................................. .3
   - Nutrition H 207 .................................................. .3
   - Introduction to Health Law and Ethics H 213 ................. .3
   - Public Health Law H 435 ........................................... .2
   - Epidemiology H 480 ................................................ .3
   - Preprofessional Internship H 493 ................................. .2
   - Seminar H 498 - 499 .............................................. .1
   - NOTE: 3-6 Upper Division Credits must be included from either Health Science Electives, Area of Emphasis or Electives.

6. Health Science Electives (3 courses) ................................ 9-10
   - Medical Terminology H 101 ....................................... .3
   - Drugs: Use and Abuse H 109 ....................................... .3
   - Chronic Illness H 205 ............................................. .3
7. Emphasis - Select one - Science or General Health Science .... 39-41
   Students should work closely with their advisors to ensure proper selection of courses and completion of specific course prerequisites.
   a. Science Emphasis* (Natural/Physical/and Mathematics) - select courses to total 39-41 credits:
      - Microbiology or Bacteriology B 205 or B 303 .......................... 4 or 5
      - Cell Biology B 301 .............................................. .3
      - Pathogenic Bacteriology B 310 ................................ .4
      - Genetics B 343-344 .......................................... .3-4
      - Parasitology B 412 ............................................ .3
      - Immunology B 420 ............................................ .3
      - Quantitative Analysis with Laboratory C 211-212 .......... .5
      - Organic Chemistry with Laboratory C 317, 318, 319, 320 .. .10
      - Physical Chemistry C 321-324 ................................ .8
      - Biochemistry with Laboratory C 431-432 .. .5
      - Mathematics M 204 ............................................. .5
      - Statistics M 120 ................................................ .4
      - A First Course in Programming CS 122 ........................... .2
      - General Physics PH 101-102 ................................ .6
      - Biophysics PH 207 ............................................. .4
      - Comparative Anatomy Z 301 ................................... .4
      - Vertebrate Embryology Z 351 ................................... .4
      - Histology Z 400 ................................................ .4
      - Physiology Z 404 or 409 ...................................... .4
      - Or other courses as approved by the advisor.
   b. General Health Science Emphasis - select courses to total 39-41 credits:
      - Microbiology B 205 .............................................. .4
      - Organic Chemistry with Lab C 317, 318, 319, 320 .................. 10
      - A First Course in Programming CS 122 ........................... .2
      - Technical Writing E 202 ........................................ .2
      - Mathematics M 204 ............................................. .3
      - Statistics M 120 or P 305 ....................................... .3-4
      - General Physics PH 101-102 ................................ .8
      - Principles of Economics EC 201-202 ............................. 3-6
      - Accounting AC 205-206 ........................................ .3-6
      - Fund of Speech Comm CM 310 ................................... .3
      - Communication in the Small Group CM 215 ..................... .3
      - American National Government PO 101 ........................ .3
      - State & Local Government PO 102 ................................ .3
      - Introduction to Public Administration PO 303 .................. .3
      - Principles of Marketing MK 301 ................................ .3
      - Management and Organization Theory MG 301 ................. .3
      - Personnel Administration MG 305 ................................ .3
      - Applied Anatomy PE 230 ....................................... .3
      - Exercise Physiology PE 310 .................................... .3
      - Kinesiology PE 317 ............................................. .3
      - Psychology P 101 ................................................ .3
      - Educational Psychology P 325 .................................. .3
      - Intro to Sociology SO 101 ....................................... .3
      - Social Problems SO 102 ........................................ .3
      - Sociology of Aging SO 325 ..................................... .3
      - Sociology of the Family SO 340 ................................ .3
      - Or other courses as approved by the advisor.

8. Electives .............................................................. 9-12

* Students who intend to apply to colleges of Medicine, Dentistry or Veterinary Medicine should consider taking C 317-339 and M 204.

Recommended Programs

ENVIORNMENTAL HEALTH

FRESHMAN YEAR

<table>
<thead>
<tr>
<th>Course</th>
<th>1st SEM</th>
<th>2nd SEM</th>
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<tbody>
<tr>
<td>English Composition E 101-102</td>
<td>3</td>
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<tr>
<td>College Chemistry C 131-134</td>
<td>4</td>
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<tr>
<td>Mathematics M 111-204</td>
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<tr>
<td>Electives (Area I)</td>
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**College of Health Science**

### SOPHOMORE YEAR

<table>
<thead>
<tr>
<th>Course Offerings</th>
<th>Credits</th>
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<tbody>
<tr>
<td>Botany BT 130</td>
<td>4</td>
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<tr>
<td>Zoology Z 130</td>
<td>5</td>
</tr>
<tr>
<td>Physics PH 101-102</td>
<td>4</td>
</tr>
<tr>
<td>Technical Writing E 202</td>
<td>3</td>
</tr>
<tr>
<td>Speech CM 111</td>
<td>3</td>
</tr>
<tr>
<td>Electives (Area I)</td>
<td>3</td>
</tr>
<tr>
<td>Psychology P 101</td>
<td>3</td>
</tr>
<tr>
<td>Sociology SO 101</td>
<td>3</td>
</tr>
<tr>
<td>Health Science Practicum EH 160</td>
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**JUNIOR YEAR**

<table>
<thead>
<tr>
<th>Course Offerings</th>
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<tbody>
<tr>
<td>Organic Chemistry C 318-319</td>
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<td>Electives</td>
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<tr>
<td>Health Science Requirements</td>
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<tr>
<td>Cell Biology B 301</td>
<td>3</td>
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<tr>
<td>Electives (Area II)</td>
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<tr>
<td>Elective (Area II)</td>
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**SENIOR YEAR**

<table>
<thead>
<tr>
<th>Course Offerings</th>
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<tbody>
<tr>
<td>Bacteriology B 303</td>
<td>5</td>
</tr>
<tr>
<td>Applied and Environmental Microbiology B 415</td>
<td>4</td>
</tr>
<tr>
<td>Health Science Requirements</td>
<td>5-6</td>
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<tr>
<td>Sociology, Psychology or Communication Elective</td>
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<tr>
<td>Entomology Z 305</td>
<td>4</td>
</tr>
<tr>
<td>Electives</td>
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**HEALTH SCIENCE**

### FRESHMAN YEAR

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<thead>
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<th>Course Offerings</th>
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<tbody>
<tr>
<td>English Composition E 101-102</td>
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<tr>
<td>Chemistry C 107-110 or C 131-134</td>
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</tr>
<tr>
<td>Mathematics M 111</td>
<td>5</td>
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<tr>
<td>Area I Core Electives</td>
<td>3</td>
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<tr>
<td>Area II Core Electives</td>
<td>6</td>
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### SOPHOMORE YEAR

<table>
<thead>
<tr>
<th>Course Offerings</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>General Botany and General Zoology BT 130 and Z 130 or Human Anatomy and Physiology Z 111-112</td>
<td>4 or 5</td>
</tr>
<tr>
<td>Area I Core Electives</td>
<td>3</td>
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<tr>
<td>Area II Core Electives</td>
<td>3</td>
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<tr>
<td>Introduction to Computers in Health Science H 120</td>
<td>2</td>
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<tr>
<td>Health Delivery Systems H 202</td>
<td>3</td>
</tr>
<tr>
<td>Nutrition H 207</td>
<td>3</td>
</tr>
<tr>
<td>Health Science Electives</td>
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</table>

### JUNIOR YEAR

<table>
<thead>
<tr>
<th>Course Offerings</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>Introduction to Health Law and Ethics H 213 or Public Health Law H 435</td>
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<tr>
<td>Health Science Electives</td>
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<tr>
<td>Courses in Emphasis</td>
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<tr>
<td>Electives</td>
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### SENIOR YEAR

<table>
<thead>
<tr>
<th>Course Offerings</th>
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<tbody>
<tr>
<td>Epidemiology H 480</td>
<td>3</td>
</tr>
<tr>
<td>Preprofessional Internship H 493</td>
<td>2</td>
</tr>
<tr>
<td>Seminar H 498 or 499</td>
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<tr>
<td>Health Science Elective</td>
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<tr>
<td>Course in Emphasis</td>
<td>9-10</td>
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<tr>
<td>Electives</td>
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### PRE-DIETETICS PROGRAM

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<tr>
<th>Course Offerings</th>
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<tbody>
<tr>
<td>Essentials of Chemistry C 107-108-109-110</td>
<td>4</td>
</tr>
<tr>
<td>English Composition E 101-102</td>
<td>3</td>
</tr>
<tr>
<td>Human Anatomy &amp; Physiology Z 111-112</td>
<td>4</td>
</tr>
<tr>
<td>Psychology P 101</td>
<td>3</td>
</tr>
<tr>
<td>Sociology SO 101</td>
<td>3</td>
</tr>
<tr>
<td>Area I Elective</td>
<td>3</td>
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### SOPHOMORE YEAR

<table>
<thead>
<tr>
<th>Course Offerings</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>Nutrition H 207</td>
<td>3</td>
</tr>
<tr>
<td>Principles of Food Preparation H 209</td>
<td>4</td>
</tr>
<tr>
<td>Math M 108</td>
<td>4</td>
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</table>

### Course Offerings

#### EH ENVIRONMENTAL HEALTH

**Lower Division**

**EH 160 ENVIRONMENTAL HEALTH PRACTICUM (0-V-1)(FS)** Field observations in public health agencies and industries. Requires a minimum 20 hours in a field and periodic seminars with a university instructor. Required for all environmental health majors.

**Upper Division**

**EH 310 WATER SUPPLY AND WATER QUALITY MANAGEMENT (2-3-3)(F)** Environmental, biological, and management principles of community water supply and water pollution control. PREREQ: Botany, Zoology, Chemistry 131-134, one year Mathematics, Upper Division status. Even-numbered years.

**EH 320 COMMUNITY ENVIRONMENTAL HEALTH MANAGEMENT (2-3-3)(F)** Sanitation and management practices for community problems dealing with waste disposal, vector control, food and milk protection, swimming pools, and recreation activities. PREREQ: Botany, Zoology, Chemistry 131-134, one year Mathematics and Upper Division standing. Odd-numbered years.

**EH 380 AIR QUALITY MANAGEMENT (2-2-2)(F)** Chemical, engineering and management principles of community and industrial air quality control. PREREQ: Organic Chemistry or concurrent enrollment. Odd-numbered years.

**EH 415 OCCUPATIONAL SAFETY AND HEALTH (2-3-3)(S)** Recognition, evaluation and control of environmental health hazards or stresses (chemical, physical, biologic) that may cause illness, injury, or impair health, or cause significant discomfort to employees or residents of the community. PREREQ: Mathematics and Upper Division standing. Odd-numbered years.

**EH 493 ENVIRONMENTAL HEALTH INTERNSHIP (0-V-V)(FS)** Three or more hours of internship per week in a business or governmental agency. The student works within the organization, keeps a record of the experience and discusses these experiences at a seminar. PREREQ: Upper Division standing; recommendation of faculty advisor; consent of instructor.

### H HEALTH SCIENCES

#### Lower Division

**H 100 INTRODUCTION TO ALLIED HEALTH (1-0-1)(F)** Various allied health disciplines and their clinical functions are discussed. Information on basic educational requirements, opportunities and advancement for each discipline of health care delivery. Lectures by allied health faculty and guest speakers from the medical community. Orientation to allied health care in clinical facilities.

**H 101 MEDICAL TERMINOLOGY (3-0-3)(FS)** Introduction to Greek and Latin prefixes, suffixes, combining forms, and roots used in medical terminology, as well as the study of anatomical, physiological and pathological terms, clinical procedures, abbreviations, and lab tests according to systems of the body. Medical terminology is treated as a medical language, and clinical application is stressed.

**H 109 DRUGS: USE AND ABUSE (3-0-3)** An introductory course which deals with the basic medical, social and psychopharmacological considerations related to the use of therapeutic and non-therapeutic (recreational) drugs.

**H 120 INTRODUCTION TO COMPUTERS IN HEALTH SCIENCE (1-2-2)** The application of word processing, data base management, spreadsheet analysis, and graphic presentation of health science information. The acquisition of information on selected topics requiring the use of microcomputers in health science specialties. Special fee required.

**H 202 HEALTH DELIVERY SYSTEMS (3-0-3)(F)** Consideration of processes, professionals, politics, programs, laws and institutions which are involved in the maintenance of health and treatment of disease.

**H 205 CHRONIC ILLNESS: IMPACT AND OUTCOME (3-0-3)(S)** Introduction to the medical and psychosocial dimensions of chronic illness, using cancer as a prototype. PREREQ: sophomore standing or PERMINST. Even-numbered years.

**H 207 NUTRITION (3-0-3)** Study of fundamentals of nutrition as a factor in maintaining good health. Present day problems in nutrition are also discussed. Previous or concurrent enrollment in C 107-108 and Z 111 is suggested.

**H 209 PRINCIPLES OF FOOD PREPARATION (2-6-4)(FS)** Introduce the relationships of the nutritive value of foods, principles of food preparation, and the human body. Approved techniques of food preparation to retain nutrients and enhance palatability, food safety and sanitary practices, and food management will be stressed. PREREQ: or COREQ: H 207. Odd-numbered years.

**H 211-212 DISEASE CONDITIONS I AND II (3-0-3)(FS)** Introduction to the
general principles of disease. Etiology, signs, symptoms, treatment and management of diseases that affect individual organs in the various body systems. PREREQ: H 101. "Sequencing beginning fall semester.

H 213 INTRODUCTION TO HEALTH LAW AND ETHICS (2-0-2) (F). A broad introduction to the basic legal and ethical concepts considered to be essential in the care of clients by health providers. A foundation course for instruction in the specialized application of this content in the students' major health care disciplines.

H 214/414 ASSESSMENT OF ALCOHOL AND DRUG PROBLEMS, PART I (3-0-3) (F). Emphasis on issues relating to alcohol/drug dependency and approaches to diagnosis and/or assessment. Legal, social, and health implications will also be considered.


H 220 CARDIOPULMONARY RENAL PHYSIOLOGY (4-0-4) (F). Normal and clinical physiological functions of the pulmonary, circulatory and renal systems. PREREQ: Z 111-112.

Upper Division

H 300 PATHOPHYSIOLOGY (4-0-4) (F). Emphasis on dynamic aspects of human disease. Disruption of normal physiology and alterations, derangements, and mechanisms involved. PREREQ: C 107-108 or equivalent and Z 111-112 or equivalent.

H 304 PUBLIC HEALTH ADMINISTRATION (3-0-3) (F). Functions of local, state and federal health agencies, and factors which have an impact on agency programs. PREREQ: Upper division standing and health science major or PERM/INST. Even-numbered years.

H 306 APPLIED PHARMACOTHERAPEUTICS (3-0-3) (S). Emphasis on use of drugs in relation to health and illness in any setting, on legal aspects, and on patient education. Students will begin to use prerequisite information in pathophysiology to study drugs and their inter-system relationships. PREREQ: H 300: 2-8 credits each Chemistry and Human Anatomy and Physiology; clinical background as a health student or professional.

H 405 MEDICAL ECONOMICS AND FINANCE (3-0-3) (S). Introduction to the economics and financing of health care and health care agencies. Odd-numbered years.

H 406 PRINCIPLES OF EDUCATION IN HEALTH SCIENCES (3-0-3) (S). Introduces the student to the concepts and practical applications of educational theory as applied to health occupations. The techniques of the course will examine preservice health education, in-service education, continuing education, and community health education.

H 435 PUBLIC HEALTH LAW (2-0-2) (S). A study of public health legislation, including the implementation and enforcement of such laws, and specific duties of agencies regarding selected sections of the law. PREREQ: Upper division standing or PERM/INST. Odd-numbered years.

H 480 EPIDEMIOLOGY (3-0-3) (S). Study of the distribution of disease or physiological conditions of humans and of factors which influence these distributions. PREREQ: Upper division status, health science major or PERM/INST; statistics desirable. Even-numbered years.

H 493 PREPROFESSIONAL INTERNSHIP (1-3-2) (F/S). Three hours of internship in a clinical setting under direction of a preceptor who is a practicing professional. Student keeps a record of experiences and discusses them at a weekly one-hour seminar. PREREQ: H 202; Upper division standing, cumulative GPA above 3.25; recommendation of faculty advisor; consent of instructor.

H 499 - 499 SEMINAR (1-4-1 or 2-3-1/5). Presentation of selected health science topics under faculty direction. 1 or 2 credits.

Department of Medical Record Science

Health Sciences Building
Telephone (208) 385-1130

Chairman and Associate Professor: Conrad Colby; Program Director and Instructor: Eyison; Associate Professor: Seddon

Degrees Offered

• AS in Medical Record Technology

Departmental Statement

Medical Record Science is concerned with the application or techniques used in the development, implementation, and retention of health information. The program is a combination of clinical practice and study in areas such as classification systems, health data and record retention systems. Completion of the two year Associate of Science degree in Medical Record Technology will enable the student to be eligible for the national accreditation examination.

The program is accredited by the Committee on Allied Health Education and Accreditation of the American Medical Association in cooperation with the Council on Education of the American Medical Record Association.

Requirements for Admission

1. First Year
   a. See University Admission Policy.
   b. Student must see a Medical Record Technology Advisor.
   c. Complete first semester with a GPA of 2.00 or higher.

2. Second Year
   a. Only students who have completed or are in the process of completing the first year curriculum with a GPA of 2.00 or higher will be considered for acceptance into the second year of the program.
   b. Health status must be adequate to insure successful performance of hospital activities.

Application Process

1. Make an appointment for an interview during Spring Semester of the first year.

2. Complete and return to the Medical Record Science Department a "Special Programs Application" on or before March 1 of the year the student is in Introduction to Medical Records (MR 115).

3. Submit $15.00 for name pin and lab fee, per academic year, payable to the program by September 1st of second year of the program.

Promotion and Graduation

1. Students must maintain a GPA of at least 2.00 in order to enter the second year of the program.

2. A grade of less than C in any professional course, numbered H or MR, must be repeated and raised to C or higher before continuing in the program.

Required Program

MEDICAL RECORD TECHNOLOGY PROGRAM
Associate of Science Degree

FRESHMAN YEAR

1. Students must maintain a GPA of at least 2.00 in order to enter the second year of the program.

2. A grade of less than C in any professional course, numbered H or MR, must be repeated and raised to C or higher before continuing in the program.

3. Cumulative GPA above 3.0 or higher.

4. Upper division standing, cumulative GPA above 3.25 or equivalent.

5. Recommendation of faculty advisor; consent of instructor.

SOPHOMORE YEAR

1. Students must maintain a GPA of at least 2.00 in order to enter the second year of the program.

2. A grade of less than C in any professional course, numbered H or MR, must be repeated and raised to C or higher before continuing in the program.

3. Cumulative GPA above 3.0 or higher.

4. Upper division standing, cumulative GPA above 3.25 or equivalent.

5. Recommendation of faculty advisor; consent of instructor.
Course Offerings

MR MEDICAL RECORDS

Lower Division


MR 203 MEDICAL RECORDS II (3-0-3)(S). Quality assurance, basic principles of supervising and managing a medical record department, communication theory and practices for medical record professionals. PREREQ: MR 201. COREQ: MR 204.

MR 204 MEDICAL RECORDS III LABORATORY (0-4-2)(S). Applications in quality assurance, management, and communication principles. Observation of record keeping practices in non-hospital settings and continued computer activities. COREQ: MR 203.

MR 205 HEALTH DATA (3-0-3)(S). Collection and presentation of routine data for daily, monthly, and annual hospital statistical reports. Formulas, preparation of birth certificates and abstracting data for the computer. PREREQ: PERM/INST.

MR 207 DIAGNOSTIC AND OPERATIVE CODING (3-0-3)(F). Principles and practice in coding diseases and operations according to International Classification. Other systems of coding and methods of indexing included. PREREQ: PERM/INST.


MR 215 CLINICAL PRACTICE (0-V-2). Following completion of all other program requirements, students spend 120 hours in medical record departments of affiliated health facilities demonstrating their proficiency in the various areas of medical record technology.

Department of Nursing

Science/Nursing Bldg., Rm. 107 Telephone (208) 385-3907
Chairman and Professor: Dr. Neila Poshek; Associate Professors: Baker, Fountain, Job, Lynch, Matson, Penner, Taylor, Wade, Wilcox; Assistant Professors: Brudennell, Butterfield, Carpenter, Chase, Nelson, Peterson; Instructors: Bledsoe, Leahy, Otterness, Straub, Wise.

Degrees Offered

- AS, Nursing
- BS, Nursing

Departmental Statement

The Department conducts a two-year, lower division curriculum leading to an Associate of Science Degree, a four-year curriculum leading to a Bachelor of Science Degree, and a two-year upper division curriculum for Registered Nurses which leads to a Bachelor of Science Degree.

The current system of health care delivery requires associate as well as baccalaureate degree-prepared practitioners of nursing. Each of these contribute to meeting the nursing and health care needs of people. The associate degree nurse is prepared at the technical level; the baccalaureate degree nurse is prepared at the professional level. Both levels of nursing personnel function as interdependent members of the health care team.

Associate of Science Degree

Description: This program prepares individuals to function at a beginning level in giving care to patients. Nursing courses include theory and clinical laboratory experiences, primarily in hospitals and other acute care settings. In the clinical component of each nursing course, one credit hour represents three hours of clinical and/or campus laboratory time. During the freshman year, there is an average weekly number of nine to twelve clinical practice hours and during the sophomore year, fifteen to eighteen hours per week, which may be scheduled days, afternoons, or evenings, between the hours of 6:30 a.m. and 11:30 p.m.

The program is approved by the Idaho Board of Nursing and accredited by the National League for Nursing. The graduate is eligible to write the National Council Licensure Examination to become a Registered Nurse (R.N.).

Admissions - Advisement: Contact the Department of Nursing for admission requirements and advisement.

Degree Requirements

Associate of Science

Full-Time Nursing Student

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Bachelor of Science Degree

Description: This program is designed to prepare professional nurses to provide nursing care for patients/clients in hospitals, nursing homes, and a variety of community health agencies. The graduate is eligible to write the licensure examination for registered nursing and is prepared to assume professional leadership responsibilities in nursing practice. The curriculum also provides a foundation for graduate study in nursing.

Admission Requirements and Advisement: Contact the Department of Nursing for admission requirements and advisement.

Degree Requirements

Bachelor of Science

Full-Time Nursing Student

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124
Bachelor of Science Degree for Registered Nurses

This program has two major purposes:

1. To enable registered nurses to earn the baccalaureate degree with a major in nursing;
2. To provide the base for graduate study in nursing.

Admission to this program is limited to registered nurses graduated from associate degree or diploma schools of nursing. Graduates are awarded the Bachelor of Science degree with a major in Nursing and will be prepared for independent, collaborative, and leadership responsibilities in the delivery of health care services. The program is approved by the Idaho State Board of Nursing and accredited by the National League for Nursing.

Admission Requirements and Advisement:

Contact the Department of Nursing for admission requirements and advisement.

Degree Requirements

Bachelor of Science Degree for Registered Nurses

Full-Time Student

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Course Offerings

N NURSING

Lower Division

N 100 FUNDAMENTALS OF NURSING I (3-9-6)(F). First of four sequential courses. Focus is on the role of the nurse in providing care to patients and their families. Clinical learning experiences assist student in planning and implementing interventions for families and individuals with complex health problems. PREREQ: Admission to the AD Nursing Program.

N 102 FUNDAMENTALS OF NURSING II (3-12-7)(S). Builds upon concepts presented in N 100. Focus is on the role of the nurse in providing care to patients and their families. Clinical learning experiences assist student in planning and implementing interventions for families and individuals with complex health problems. PREREQ: N 100.

N 114 ORIENTATION TO ASSOCIATE DEGREE NURSING FOR ADVANCE PLACEMENT STUDENT (2-0-2)(S). Designed to assist the student in transition from one role in nursing to another. Content focuses upon basic nursing concepts, changing roles and issues, and challenge examinations for advanced placement.

N 200 NURSING INTERVENTION I (4-15-9)(F). Provides for continued development of concepts presented in first year courses. Focus is two-fold: assisting patients and families to adapt to changes in life-style or problems resulting from disordered communication. Clinical learning experiences assist student in providing interventions for families and individuals with increasingly complex health problems. PREREQ: N 102.

N 202 NURSING INTERVENTION II (4-18-10)(S). Continues development of concepts acquired in previous courses and completes student's socialization to the role of the nurse. Focus is on the role of the nurse in providing care to patients and their families. Clinical learning experiences assist student in planning and implementing interventions for families and individuals with complex health problems. PREREQ: N 200.

N 204 INTRODUCTION TO NURSING PROCESS (2-8-2)(F). Focus is on practice as a cognitive framework for professional practice. Nursing diagnosis is utilized as a client classification system. PREREQ: Admission to the AD Nursing Program.

N 206 FOUNDATIONS OF NURSING (3-0-3)(S). An analysis of cultural, environmental, developmental and interactional factors which affect health; and measures used to assist people of all ages cope with change and progress toward high-level wellness. PREREQ: Admission to the AD Nursing Program.

N 207 FOUNDATIONS OF NURSING (3-0-3)(S). Focus is on application of interpersonal, affective, and psychomotor skills learned in N 206. This includes physical assessment. COREQ: N 206.

Upper Division

N 302 PROFESSIONAL NURSING (3-6-3)(F). Introduction to theoretical foundations in nursing. Overview of the historical evolution of nursing. Discussion of the professionalization of nursing and characteristics of baccalaureate nursing education. Ethical issues in professional nursing. PREREQ: Admission to BS program for R.N.'s.

N 308 LEADERSHIP AND PROFESSIONAL INTERACTIONS (2-8-2)(F). The leadership process is explored in relation to power, communication, bureaucratic structure, group theory, ethical/political issues and change. Nursing leadership and professional interactions are emphasized in the context of the health care setting. PREREQ or COREQ: N 302, 360 COREQ: N 309.


N 314 CONCEPTS OF NURSING I (4-4-4)(F). Focuses on concepts, principles and theories related to promotion and maintenance of health in chronic illness for persons of all ages. PREREQ: N 206 COREQ: N 315.

N 315 CONCEPTS OF NURSING II (4-4-4)(S). Applied concepts, principles, and theories to N 314 to persons with chronic illness in a variety of settings. COREQ N 314.

N 318 CONCEPTS OF NURSING II (4-4-4)(S). Focuses on concepts, principles and theories related to promotion and maintenance of health in acute illness for persons of all ages. PREREQ: N 314 COREQ: N 319.

N 319 PRACTICUM: NURSING II (4-3-3)(S). Applied concepts, principles, and theories to N 318 to persons with acute illness in a variety of settings. COREQ: N 318.


College of Health Science


N 392 INTRODUCTION TO NURSING RESEARCH (3-0-3)(S). Research process as applied in health care research. Emphasis on defining researchable problems, conceptualizing research design and analyzing steps in the research process. Critical review of research articles to evaluate findings for application to nursing practice. PREREQ: N 302 or PERM/INST.

N 402 PROFESSIONAL NURSING II (2-0-2)(S). Leadership role of professional nurse in improvement of health care services, health policy and advancement of nursing profession. Emphasis on concepts, methodology, data, ethics, issues and trends. Examination of individual goals relevant to professional commitments. PREREQ: N 410, 430. COREQ: 406, 432.


N 409 PRACTICUM: FAMILIES AND GROUPS UNDER STRESS (0-6-2)(S). Clinical laboratory for N 408.


N 412 COMMUNITY HEALTH NURSING (5-0-5)(F). Concepts basis to the provision of nursing care to individuals, families, and groups within the context of the community. Major content areas include: family nursing, home health care, roles of the community health nurse, health education, community assessment, and health policy formation. PREREQ: N 318. COREQ: N 413.

N 413 COMMUNITY HEALTH NURSING LAB (0-15-5)(F). Application of community health nursing concepts to individuals and groups within the context of the community. COREQ: N 412.

N 416 PSYCHOSOCIAL NURSING (2-0-2)(F). The study of psychosocial factors affecting nursing care and understanding of illness as sociological and psychological maladaptation. Includes knowledge of emotional disorder and psychotherapeutic interventions used in nursing. PREREQ: N 318 COREQ: N 417.

N 417 PSYCHOSOCIAL NURSING LAB (0-3-1)(F). Application of theory from N 416 including therapeutic use of self with individuals, families, and groups of all ages. COREQ: N 416.

N 430 HEALTH-ILLNESS III (2-0-2)(F). Conceptual base for nursing practice applied to individuals of all ages and their families to facilitate their adaptation to life-threatening illnesses/trauma. Use of nursing process with emphasis on evaluation and protection of care. PREREQ or COREQ: All 300 level nursing and support courses. COREQ: N 410, 431.


N 432 HEALTH-ILLNESS IV (2-0-2)(S). Conceptual base for nursing practice applied to individuals of all ages and their families to facilitate their adaptation to chronic illness. Use of nursing process with emphasis on gerontology. PREREQ: N 410, 430. PREREQ or COREQ: N 402, 408, 433.


N 434 LEGAL/ETHICAL ISSUES AND TRENDS (3-0-3)(S). An exploration and evaluation of the legal and ethical issues and trends considered to be essential and for those administering nursing care. PREREQ: Current enrollment in Nursing major.

N 436 NURSING LEADERSHIP (3-0-3)(S). Principles and concepts basic to the leadership process as applied to nursing. Concepts include change, decision-making, collaboration, conflict resolution, negotiation, communication, power and the bureaucratic structure within health care settings. PREREQ: N 416. COREQ: PERM/INST.


N 456 NURSING STRATEGIES IN HIGH RISK CHILDBEARING FAMILIES (3-0-3)(F/S). Concepts and content relative to perinatal or neonatal or maternal-neonatal crises. PREREQ: Current enrollment in Nursing Major or PERM/INST.

N 470 PRINCIPLES AND PRACTICES OF SCHOOL NURSING (3-0-3)(F/S). Application of the principles and practices of community health nursing to the organization, administration, and legal aspects of school health programs. (Meets Idaho Certification Standards for Professional School Personnel) PREREQ: Current enrollment in Nursing Major or PERM/INST.

N 472 NURSING CARE OF THE ADULT IN THE WORKPLACE (3-0-3)(F). Exploration of nursing concepts essential to promotion of health and prevention of illness/accidents in the occupational setting; roles and responsibilities of the occupational health nurse. PREREQ: Current enrollment in Nursing Major or PERM/INST.

N 478 NURSING AND POLITICS (3-0-3)(F). Explores the relationship between professional nursing and the political process; concepts of power, politics, and processes as these impact nursing practice. PREREQ: Current enrollment in Nursing Major or PERM/INST.

Department of Preprofessional Studies

Health Sciences Building, Room 101  Telephone (208) 385-1787

Dean and Professor: Elden Edmundson

Degrees and Majors Offered

- BS in Pre-Dental with emphasis in Biology or Chemistry
- BS in Pre-Medical Studies with emphasis in Biology or Chemistry
- BS in Pre-Veterinary Medicine Studies
- BS in Pre-Physical Therapy
- Non-degree Program in Pre-Dental Hygiene
- Non-degree Program in Pre-Occupational Therapy
- Non-degree Program in Pre-Optometric Medicine
- Non-degree Program in Pre-Pharmacy
- Non-degree Program in Pre-Physical Therapy

Department Statement

The Preprofessional Studies Department has responsibility to those students who need to have undergraduate studies prior to applying to a professional school. This includes students who have declared a major in Pre-Medicine, Pre-Dentistry, Pre-Dental Hygiene, Pre-Occupational Therapy, Pre-Optometry, Pre-Pharmacy, Pre-Physical Therapy, Pre-Veterinary Medicine, Pre-Chiropractic, or Medical Technology.

In view of the specialized nature of each program the student should seek regular counsel from the advisor who has been designated for his or her major field of interest. A handbook for Preprofessional students is available from the advisors and should be used as a reference.

Students need to be aware of deadlines established by professional schools and testing organizations. Admissions examinations (Medical College Admission Testing, Dental Admission Testing, Dental Hygiene Aptitude Testing, Pharmacy College Admission Testing, and the Veterinary Aptitude Test) must be taken at specific times. These examinations may or may not be administered on the BSU campus.

Deadlines for applying to professional schools vary from year to year. The student is responsible for determining the specific deadlines and fees which pertain to her/his field of interest.

In addition to academic coursework the Preprofessional Studies students have opportunities and are encouraged to work in a clinical environment and observe at first hand the practice and delivery of health care.

Qualified students may register for an internship of two credits per semester. These students will work and study in a clinical environment with a practicing physician, dentist, or veterinarian, etc. PREREQ: H 202; upper division standing; cumulative GPA above 3.25; recommendation of faculty advisor; consent of the instructor. See course H 493 described in the Community and Environmental Health Section.

Information is available from advisors concerning state-supported tuition programs for qualified Idaho residents to professional schools outside the state of Idaho. These programs are

- WAMI (Washington-Alaska-Montana-Idaho) for medical school;
- University of Utah for medical school;
- IDEP (Idaho Dental Education Program) for dental school;
- WOF (Washington-Oregon-Idaho) for veterinary medicine school;
- WICH (Western Interstate Consortium of Higher Education) for schools of optometry, occupational therapy and physical therapy.
### Pre-Dentistry, Biology Option

**Bachelor of Science**

Science-Nursing Building, Room 213  
Telephone (208) 385-3499  
Advisor: Dr. Charles W. Baker

**Requirements**

- General University and Basic Core: 21 credits
- English Composition E 101-102: 6 credits
- General Psychology P 101: 3 credits
- Zoology Z 130: 4 credits
- Botany BT 130: 4 credits
- Cell Biology B 301: 3 credits
- General Bacteriology B 303: 5 credits
- Comparative Anatomy Z 301: 4 credits
- Vertebrate Embryology Z 351: 4 credits
- Zoology Z 401, 409: 4 credits
- Genetics with or without Lab B 343-344: 3 credits
- Vertebrate Histology Z 400: 3 credits
- College Chemistry C 131-134: 9 credits
- *Organic Chemistry C 317-320: 8-10 credits
- Biochemistry with or without Lab C 431-432: 5 credits
- General Physics Ph 101-102: 8 credits
- Mathematics M 111-204: 10 credits
- Electives: 12-25 credits
- Total must be at least 128 credits

**Suggested Program**

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*Pre-Dentistry: Pre-Medical 10

**Pre-Medicine, Chemistry Option**

**Bachelor of Science**

Science-Nursing Building, Room 210  
Telephone (208) 385-3520  
Advisor: Dr. H. K. Fritchman

**Requirements**

- General University and Basic Core: 21 credits
- English Composition E 101-102: 6 credits
- General Psychology P 101: 3 credits
- Zoology Z 130: 5 credits
- Botany BT 130: 4 credits
- Cell Biology B 301: 3 credits
- Comparative Anatomy Z 301: 4 credits
- Genetics, with or without lab B 343, 344: 3-4 credits
- Vertebrate Embryology Z 351: 4 credits
- College Chemistry C 131-134: 9 credits
- Organic Chemistry C 317-320: 10 credits
- Bio or Analytical Chemistry with Lab C 431-432 or C 211-212: 4-5 credits
- Physical Chemistry C 321-324: 8 credits
- Instrumental Analysis C 411: 4 credits
- Chemistry Independent Studies C 496: 1 credit
- Chemistry Seminar C 498-499: 2 credits
- General Physics Ph 101-102: 8 credits
- Mathematics M 111-204: 10 credits
- Mathematics M 205-206: 8 credits
- Electives: 9-11 credits

**Suggested Program**

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<tr>
<td></td>
<td>General Psychology P 101</td>
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<tr>
<td></td>
<td>Chemistry Seminar C 498-499</td>
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<td></td>
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<td>Electives</td>
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</tr>
</tbody>
</table>

*Additional Upper Division credits so that Upper Division credits will total at least 40.  
**H 202, Health Delivery Systems, is prerequisite for Preprofessional Internship.

**Pre-Veterinary Medicine**

**Bachelor of Science**

Science-Nursing Building, Room 212  
Telephone (208) 385-3504  
Advisor: Dr. Russell J. Centanni

The states of Idaho and Washington have an agreement under which a number of places in the Washington State University School of Veterinary Medicine are guaranteed each year to qualified Idaho residents. Idaho residents who plan on veterinary medicine as a career should satisfy the entrance requirements for the WSU School of Veterinary Medicine. Students should seek regular counseling from the pre-veterinary medicine advisor.

The student must maintain either at least 3.20 overall GPA or at least 3.30 GPA the last 2 years; and an average of at least 15 credits per semester. Candidates with the greatest depth and breadth of academic background are given preference by WSU.

*Either the Graduate Record Examination (GRE) or the Veterinary College of Health Science
College of Health Science

Aptitude Test (VAT) should be taken in October prior to the year in which the student hopes to enter the WSU School of Veterinary Medicine.

Students are to acquire and record at least 300 hours of significant exposure to veterinary medicine while employed by or working on a volunteer basis for a graduate veterinarian. The 300 hours must be completed by November 1 of the year of application.

**Requirements**

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
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<tbody>
<tr>
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<td>Zoology Z 130</td>
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<td>Botany BT 130</td>
<td>4</td>
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<tr>
<td>Cell Biology B 301</td>
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<td>Bacteriology B 303</td>
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</tr>
<tr>
<td>Genetics B 343</td>
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</tr>
<tr>
<td>College Chemistry C 131-134</td>
<td>9</td>
</tr>
<tr>
<td>Organic Chemistry C 317-320</td>
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<td>Biochemistry C 431-432</td>
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<td>Mathematics M 111-204</td>
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<td>General Physics PH 101-102</td>
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**Suggested Program**

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<table>
<thead>
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<td>Mathematics M 111</td>
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<tr>
<td>College Chemistry &amp; Laboratory C 131-134</td>
<td>9</td>
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<tr>
<td>Organic Chemistry &amp; Laboratory C 317-319</td>
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<tr>
<td>*Biochemistry &amp; Laboratory C 431-432</td>
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<td>General Zoology Z 130</td>
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<td>Cell Biology B 301</td>
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<td>Bacteriology B 303</td>
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<td>Pathogenic Bacteriology B 310</td>
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<td>Immunology B 420</td>
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<tr>
<td>General Botany BT 130</td>
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</tr>
<tr>
<td>Human Physiology Z 401</td>
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<td>Health Delivery Systems H 202</td>
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<td>Health Science Electives</td>
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<tr>
<td>Electives</td>
<td>4</td>
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</table>

**Medical Technology Clinical Class and Practice (MT 487-8-9)** is comprised of a 12-month course of study of the following subjects, taught as part of the hospital program:

- Hematology
- Clinical Bacteriology
- Clinical Parasitology
- Urinalysis
- Clinical Chemistry
- Immunohematology
- Serology-Immunology
- Toxicology
- Clinical Mycology
- Clinical Correlations Seminar

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>Biochemistry C 431-432</td>
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<td>Human Physiology Z 401</td>
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<td>Health Delivery Systems H 202</td>
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<td>Health Science Electives</td>
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<td>Electives</td>
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**Suggested Program**

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<table>
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<td>Area II Core Elective</td>
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<tr>
<td>Mathematics M 111</td>
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<tr>
<td>College Chemistry C 131-134</td>
<td>9</td>
</tr>
<tr>
<td>Organic Chemistry C 317-320</td>
<td>3</td>
</tr>
<tr>
<td>*Biochemistry &amp; Laboratory C 431-432</td>
<td>4</td>
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<tr>
<td>General Zoology Z 130</td>
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<td>Cell Biology B 301</td>
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<td>Bacteriology B 303</td>
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<td>Health Science Electives</td>
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<td>Electives</td>
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</table>

**Bachelor of Science in Medical Technology**

Advisors: Conrad Colby, Dr. Robert Ellis, Dr. Eugene Fuller

The Medical Technologist performs many routine and specialized tests in the clinical laboratory to develop data for use in determining the presence and extent of disease, as well as implications as to the cause of disease. Medical Technologists work in areas of hematology, serology and immunology, chemistry, blood banking, microbiology and parasitology, urinalysis, histology, and cytology.

A criterion for admission to many professional schools of Medical Technology is a Bachelor of Science degree comprised of courses prescribed by the Committee on Allied Health Education and Accreditation (CAHEA) of the American Medical Association. The professional schools at St. Alphonsus and St. Luke's Regional Medical Center require such a degree. The Bachelor of Science degree in Health Science Studies (see Department of Community and Environmental Health) satisfies this requirement.

Professional schools which do not require a Bachelor's degree as a criterion for admission will consider students who have completed at least 96 credits of basic sciences and general education courses prescribed by CAHEA. These courses are listed below.

Students have the responsibility of applying directly to hospital schools for admission to a professional program in Medical Technology.

Upon admission to a hospital school affiliated with BSU and approved and accredited by CAHEA, the student may register for and earn an additional 32 credits for Medical Technology Clinical Class and Practice (MT 487-8-9) and apply for a Bachelor of Science degree in Medical Technology.

**Requirements**

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
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<td>College Chemistry &amp; Laboratory C 131-134</td>
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<td>Organic Chemistry &amp; Laboratory C 317-319</td>
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<td>*Biochemistry &amp; Laboratory C 431-432</td>
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<td>General Zoology Z 130</td>
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<td>Health Science Electives</td>
<td>8</td>
</tr>
<tr>
<td>Electives</td>
<td>4</td>
</tr>
</tbody>
</table>

*Two semesters of Biochemistry C 431-432-433 (7 credits) are recommended.**
Course Offerings

MT MEDICAL TECHNOLOGY

MT 201 BASIC MEDICAL TECHNOLOGY (2-8-2)3. Introduction to the basic aspects of theory and practice encountered in Medical Technology. Even-numbered years.

MT 407 CLINICAL CLASS AND PRACTICE (76 hours per semester–324 hours per semester–8 CR)5(5U) (second session), Clinical instruction in a hospital school approved and accredited by CAHEA. PREREQ: Acceptance by a hospital school approved by CAHEA.

MT 408 CLINICAL CLASS AND PRACTICE (153 hours per semester–647 hours per semester–12 CR)6(6F). Clinical instruction in a hospital school approved and accredited by CAHEA. PREREQ: Acceptance by a hospital school accredited by CAHEA.

MT 409 CLINICAL CLASS AND PRACTICE (153 hours per semester–218 hours per semester–12 CR)5(5S). Clinical instruction in a hospital school approved and accredited by CAHEA. PREREQ: Acceptance by a hospital accredited by CAHEA.

Non-Degree Programs

PRE-DENTAL HYGIENE

Student Health Center, Room 117
Telephone (208) 385-1996
Advisor: Rex E. Profit

A career in Dental Hygiene requires a Bachelor of Science in Dental Hygiene. Students may take the first two years of general education courses at BSU and apply for admission to professional school. The program suggested here is based upon the prerequisites generally required by professional schools. Students should consult the advisor and pattern their program at BSU on the requirements of the specific professional school to which they expect to apply.

Suggested Program

<table>
<thead>
<tr>
<th>1st SEM</th>
<th>2nd SEM</th>
</tr>
</thead>
<tbody>
<tr>
<td>FRESHMAN YEAR</td>
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<tr>
<td>English Composition E 101-102</td>
<td>3</td>
</tr>
<tr>
<td>Anatomy &amp; Physiology Z 111-112</td>
<td>4</td>
</tr>
<tr>
<td>Chemistry C 107, 109</td>
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<td>Chemistry C 108, 110</td>
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<tr>
<td>Mathematics M 108 or M 111</td>
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<tr>
<td>Introduction to Allied Health H 100</td>
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<tr>
<td>Area I Core</td>
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<td>16-17</td>
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<tr>
<td>SOPHOMORE YEAR</td>
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<tr>
<td>Nutrition H 207</td>
<td>3</td>
</tr>
<tr>
<td>Speech CM 111</td>
<td>3</td>
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<td>Zoology Z 130</td>
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<tr>
<td>Sociology SO 101</td>
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<tr>
<td>Psychology P 101</td>
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<td>Microbiology B 205</td>
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<td>Mathematics M 120</td>
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<tr>
<td>Technical Writing E 202</td>
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<td>Area II Core</td>
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<td>17</td>
<td>17</td>
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</table>

PRE-OCCUPATIONAL THERAPY

Human Performance Center
Telephone (208) 385-3383
Advisor: Conrad Colby

Occupational Therapy schools differ considerably in their preprofessional requirements. A minimum of two preprofessional years is required, and more in the case of some schools. A student interested in this career is advised to consult the advisor, determine which of the several schools would be the student’s choice, and pattern the preprofessional curriculum in line with the requirements of the desired schools.
### PRE-OPTOMETRY

**Human Performance Center**

Advisor: Conrad Colby

Students interested in preparing for optometry training should take science courses and laboratories designed for science majors. Brief survey courses in the sciences will not prepare a student for the schools and colleges of Optometry.

Although a minimum of two years of pre-Optometry study is required, most students accepted by a school or college of Optometry have completed three years in an undergraduate college. The student should write to the optometry school of his/her choice for a list of specific courses. A large percentage of students accepted by the schools and colleges of Optometry have earned a bachelor degree.

The requirements for admission to the schools and colleges of Optometry vary. However, all Optometric schools and colleges require at least two years of pre-Optometric study which should include:

**Suggested Program**

<table>
<thead>
<tr>
<th>Subject</th>
<th>Pre-requisites</th>
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<tbody>
<tr>
<td>Chemistry Laboratory C 132, 134</td>
<td>2 semesters</td>
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<td>College Chemistry C 131-134</td>
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<td>General Physics PH 101-102</td>
<td>2 semesters</td>
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<tr>
<td>English E 101-102</td>
<td>2 semesters</td>
</tr>
<tr>
<td>College Mathematics</td>
<td>2 semesters</td>
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</tbody>
</table>

Additional courses that may be needed for the pre-Optometric program are:

- Psychology
- Social Science
- Philosophy
- Literature
- Organic Chemistry
- Microbiology
- Anatomy and Physiology
- Comparative Anatomy
- Physiology
- Statistics
- Algebra and Trigonometry
- Analytic Geometry
- Differential Calculus
- Integral Calculus

### PRE-PHARMACY

**Science-Nursing Building, Room 313**

Advisor: Dr. Robert A. Hibbs

BSU students who wish to receive a Bachelor of Science in Pharmacy usually plan to take their preprofessional courses at BSU and then apply for admission to the College of Pharmacy at Idaho State University. The Pharmacy program consists of two years of preparatory studies followed by three years in the College of Pharmacy at ISU. The curriculum outlined below is based upon the requirements of ISU. Students who intend to apply to Pharmacy schools other than ISU are advised to consult the pre-Pharmacy advisor and pattern their curriculum after that of the school to which they expect to transfer.

**Suggested Program**

<table>
<thead>
<tr>
<th>Subject</th>
<th>Pre-requisites</th>
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<tbody>
<tr>
<td>English Composition E 101-102</td>
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<tr>
<td>Chemistry C 131, 133</td>
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<td>Fundamentals of Speech CM 111</td>
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**Sophomore Year**

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<td>Organic Chemistry C 317-318</td>
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<tr>
<td>Organic Chemistry Lab C 319-320</td>
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</tr>
<tr>
<td>Microbiology B 205</td>
<td>4</td>
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<tr>
<td>Physics PH 101-102</td>
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<tr>
<td>Area II Core</td>
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</table>

*When possible it is desirable to take M 204 the first semester and add General Botany BT 130 the second semester of the freshman year.*

### DEGREES OFFERED

- **AS in Radiologic Technology**
- **BS in Radiologic Technology**

### Department of Radiologic Sciences

**Student Health Building**

Chairman and Associate Professor: Rex E. Profit; Associate Professor: Craychee, Munk; Instructor: McCrorie.

### Course Offerings

**H HEALTH SCIENCES**

For H Health Sciences courses see course descriptions in Department of Community and Environmental Health.

### Department of Radiologic Sciences

**Student Health Building**

Chairman and Associate Professor: Rex E. Profit; Associate Professor: Craychee, Munk; Instructor: McCrorie.

### Degrees Offered

- AS in Radiologic Technology
- BS in Radiologic Technology

### Department Statement

To determine the presence of injury or disease, Radiologic Technologists position patients and operate radiographic equipment to produce diagnostic films. Most technologists work in Radiology Departments of hospitals or with physicians who maintain private practices. The Radiologic Technology Program offers a curriculum utilizing both university and clinical components. This integrated program is needed so that students may gain the essential knowledge and skills required to become Radiologic Technologists.

The program has been granted full accreditation by the Committee on Allied Health Education and Accreditation of the American Medical Association in cooperation with the Joint Review Committee on Education in Radiographic Technology. The curriculum will enable the student to complete the associate degree requirements and be eligible for the national certification examination. If desired, the student may continue on for a Baccalaureate degree.

### Department Admission Requirements and Application Procedures

**Requirements for Admission**

Freshman Year

See University Admission Policy.

b. Student must see a Radiologic Technology advisor.
2. Sophomore Year
   a. Only students who have completed or are in the process of completing the freshman curriculum with a GPA of 2.25 or higher will be considered for acceptance into the sophomore year of the Radiologic Technology Program.
   b. Health status must be adequate to insure successful performance of hospital activities.

**Application Process**

1. Freshman Year
   a. See University Requirements.

2. Sophomore Year
   a. Applicants must fill out and return to the Radiologic Sciences Department office a "Special Programs Application" on or before March 1 of the year in which they plan to attend the sophomore year.
   b. Applicants are required to have an interview during the spring semester of the freshman year. Contact the department chairman for details.
   c. Applicants will be notified of their status by April 25. Due to the limited number of clinical sites, the program can accept only a limited number of students each year.

All students admitted to the Radiologic Technology Program are required to:

1. Submit a negative PPD plus a documented Rubella immunity report to the department by December 1 of the Sophomore year.
2. Submit $65.00 as prepayment for student name pin, clinical unit, etc.
3. Submit a $60.00 lab fee, payable at the time of registration.

**Promotion and Graduation**

1. Students must maintain a GPA of at least 2.50 for the first semester of the professional program. A lower GPA may constitute basis for removal from the program.
2. A grade of less than C in any professional theory (numbered H, RD) or clinical unit must be repeated and raised to C or higher before continuing in the program.

**Required Program**

**Radiologic Technology Program**

<table>
<thead>
<tr>
<th>COURSE</th>
<th>1st SEM</th>
<th>2nd SEM</th>
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<td>English Composition E 101-102</td>
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<tr>
<td>Human Anatomy &amp; Physiology Z 111-112</td>
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<tr>
<td>Medical Terminology H 101</td>
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<tr>
<td>Essentials of Chemistry &amp; Lab C 107-108</td>
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<td>Mathematics M 108</td>
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<tr>
<td>Intro to Allied Health H 100</td>
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<tr>
<td>General Psychology P 101</td>
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<td>Intro Information Sciences IS 210</td>
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<td><strong>SOPHOMORE YEAR</strong></td>
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<td>Clinical Practicum RD 211, 221</td>
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<tr>
<td>Radiographic Positioning I RD 222</td>
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<td>Radiographic Techniques and Control RD 226</td>
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<td>Radiological Physics PH 106</td>
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<td>Intro to Radiology</td>
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<td>Clinical Experience RD 234</td>
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<td>Radiation Biology-Protection RD 230</td>
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<td>Radiographic Positioning II RD 242</td>
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<td>Clinical Experience RD 285</td>
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<td>Clinical Practicum RD 311, 321</td>
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<td>Radiographic Positioning III RD 316</td>
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<td>Special Radiographic Procedures RD 380</td>
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**SUMMER**

- Clinical Experience RD 397

**Baccalaureate Degree Curriculum**

Prerequisite for admission: Each student must have met and satisfactorily completed all requirements for the associate degree in Radiologic Technology at BSU, or have an associate degree in Radiologic Technology and or related discipline from a comparable college/university program, must be ARRT registered technologist, or have permission from the department chairman.

<table>
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<tr>
<th>COURSE</th>
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<tr>
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<tr>
<td>Management and Organizational Theory MG 301</td>
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<td>Management of Radiology Service RD 400, 401</td>
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<td>Imaging Modalities RD 402</td>
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<td>Area I Core Elective</td>
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<td>Organizational Behavior MG 401</td>
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<td>Interviewing CM 307</td>
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<tr>
<td>Health Delivery Systems H 202</td>
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<td>Medical Economics and Finance H 405</td>
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<td>Principles of Education in Health Sciences H 406</td>
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<td>Radiographic Quality Assurance RD 408</td>
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<td><strong>SUMMER</strong></td>
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<td>Clinical Experience RD 397</td>
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**Course Offerings**

**RD RADILOGIC TECHNOLOGY**

- **Lower Division**
  - RD 211 LABORATORY PRACTICUM (0-3-1)(F), Laboratory demonstration and practice of the radiographic positions and procedures discussed in RD 222. COREQ: RD 222.
  - RD 221 LABORATORY PRACTICUM (8-3-1)(S), Laboratory demonstration and practice of the radiographic positions and procedures discussed in RD 242. COREQ: RD 242.
  - RD 222 RADILOGIC POSITIONING I (4-4-4)(F), The basic concepts and procedures used in obtaining diagnostic radiographs of the upper and lower extremities, chest and abdomen. COREQ: RD 211.
  - RD 230 RADIATION BIOLOGY-PROTECTION (2-4-2)(S), General survey of radiation hazards and the potential consequences to both technologist and patient. The most appropriate means of minimizing the radiation dose will be emphasized. PREREQ: RD major or PERM/INST.
  - RD 234 INTRODUCTION TO RADIATION BIOLOGY (3-4-3)(F), Introduces the students to: hospital structure, technical aspects of radiology, and medical ethics, and prepares the student for various professional and patient interactions prior to their hospital experience. PREREQ: RD major or PERM/INST.
  - RD 242 RADILOGIC POSITIONING II (4-4-4)(S), Continuation of RD 222. The basic concepts and procedures used in obtaining diagnostic radiographs of the digestive and urinary systems, pelvic girdles, bony thorax and the spine. PREREQ: RD 222. COREQ: RD 221.
  - RD 285 RADILOGIC TECHNOLOGY (4-3-4)(S), Supervised clinical hospital experience. The student must complete 75% minimum of recently taught radiographic exams and a minimum 32 hours in darkroom and office procedures. PREREQ: RD 224.

- **Upper Division**
  - RD 311 LABORATORY PRACTICUM (8-3-1)(F), Laboratory demonstration and practice of the radiographic positions discussed in RD 316. COREQ: RD 316.
  - RD 316 RADILOGIC POSITIONING (4-4-4)(F), Advanced positioning techniques of the cranium, facial bones, sinuses, and temporal bones. PREREQ: RD 242. COREQ: RD 311.

RD 321 LABORATORY PRACTICUM (0-3-1)(S). Laboratory demonstration and practice of the special radiographic devices and techniques discussed in RD 320. COREQ: RD 320.

RD 350 MEDICAL AND SURGICAL DISEASES (3-0-3)(F). General survey of various diseases and pathology of the human body as they pertain to radiology. Emphasis on how pathology is demonstrated on radiographs and its effect on radiographic quality. PREREQ: RD 242.

RD 360 SPECIAL RADIOPHGRAPHIC PROCEDURES (4-0-4)(F). Fundamental concepts of the more specialized radiographic examinations with emphasis on studies of the nervous and circulatory systems. PREREQ: RD Major or PERM/INST.

RD 375 RADILOGIC TECHNOLOGY CLINICAL EXPERIENCE (0-280-5)(SU). Supervised clinical hospital experience. The student must complete 70% of recently taught radiographic exams plus 50% continued competency exam list. PREREQ: RD 285.

RD 385 RADILOGIC TECHNOLOGY CLINICAL EXPERIENCE (0-360-5)(F). Supervised clinical hospital experience. The student must complete a minimum 40% of exams involving the skull, 40% exams in special procedures, and 50% continued competency exam list. PREREQ: RD 375.

RD 395 RADILOGIC TECHNOLOGY CLINICAL EXPERIENCE (0-360-5)(S). Supervised clinical hospital experience. The student must complete a minimum 40% of special procedures and 50% continued competency exam list. Plus rotation in minor affiliates. PREREQ: RD 385.

RD 397 RADILOGIC TECHNOLOGY CLINICAL EXPERIENCE (0-280-5)(SU). Supervised clinical hospital experience. Students rotate through several minor affiliates and complete a minimum 20% of continued competency exam list. PREREQ: RD 395.

RD 400 MANAGEMENT OF A RADIOLoGY DEPARTMENT (3-0-3)(F). Introduction to the set up and operation of a radiology department including design principles, projection of demands, and providing for growth and development. Structural and administrative requirements will be discussed. PREREQ: PERM/INST.

RD 401 MANAGEMENT OF A RADIOLoGY SERVICE (3-0-3)(S). Applied principles and techniques of management and supervision. Includes departmental administration of records, equipment, personnel, and budgets. PREREQ: RD 400, PERM/INST.

RD 402 IMAGING MODALITIES IN RADIOLoGY (3-0-3)(S). Discussion of various medical imaging modalities including Ultrasonography, CT, M.R.I., PET, Digital Radiography, Electronic Imaging and Nuclear Medicine. Theory and operational principles will be examined along with economic impact, purchase and acquisition procedures and use considerations. PREREQ: PERM/INST.

RD 408 RADIOPHGRAPHIC QUALITY ASSURANCE (3-0-3)(S). Provide skills required for conducting and managing a radiographic quality assurance program. Includes demonstrations and performances with quality assurance instruments. Principles and techniques of daily radiographic quality assurance will be introduced. PREREQ: PERM/INST.

RD 436 SEMINAR IN RADIOLoGICAL SCIENCES (2-0-2)(S). Analysis of new radiographic imaging systems and their radiographic modalities and review of the literature with presentations on various radiological science topics. Upper division majors only or permission of instructor.

Department of Respiratory Therapy

2260 University Drive

Telephone (285) 385-3383

Chairman and Associate Professor: Conrad Colby; Director of Clinical Education and Instructor: Jeffrey M. Anderson; Medical Director: D. Merrick, M.D.; Associate Professor: Ashworth; Instructor: Lester.

Degrees Offered

- AS in Respiratory Therapy
- BS in Respiratory Therapy

Departmental Statement

Respiratory Therapy is an allied health specialty which is concerned with the treatment, management, control and care of the patient's process of breathing. The Respiratory Therapist is a specialist in the use of therapeutic and evaluation techniques in respiratory care. The Respiratory Therapy curriculum consists of a preprofessional year followed by two years of professional study leading to an Associate of Science degree in Respiratory Therapy. The Associate of Science degree qualifies the student for the examination of the National Board for Respiratory Care. If accepted, the student may continue on to the Baccalaureate degree.

The Respiratory Therapy Program has been granted accreditation by the Committee on Allied Health Education and Accreditation of the American Medical Association.

Department Admission Requirements and Application Procedures

Respiratory Therapy Program

Requirements for Admission

1. Preprofessional Year
   a. See University Admission Policy.

2. Professional Program
   a. Only students who have completed or are the in the process of completing the preprofessional curriculum with a GPA of 2.00 or higher will be considered for acceptance into the Respiratory Therapy Program.
   b. Health status must be adequate to ensure performance of hospital activities.

All students admitted to the Respiratory Therapy Program are required to:

1. Submit a negative PPD or chest x-ray plus a documented Rubella immunity report to the department by August of the year in which the student enters the professional program.

Application Process:

1. Preprofessional Year
   a. See University Requirements.

2. Professional Program
   a. All students must fill out and return to the Respiratory Therapy Department of Respiratory Therapy Application Process: Office a "Special Programs Application" on or before March 1 of the year in which they plan to attend the professional program.
   b. Applicants may be required to have an interview during the spring semester of the preprofessional year. Contact the department chairman for specific dates.
   c. Applicants will be notified of their status by April 25. Due to the limited number of clinical sites, the program can accept only a limited number of students each year.
   d. After being notified of acceptance to the program, submit $16.50 as prepayment for student name pin and clinical insurance. This nonrefundable cost is payable by May 1.
   e. A $16.00 lab fee is payable by September 1 of each professional year.

Promotion and Graduation:

Students who do not meet these requirements may be removed from the program:

1. Professional Program
   a. Students must earn at least a "C" in every Biology, Health Science, Mathematics, Physical Science, and Respiratory Therapy course.
   b. A grade of less than a "C" in any professional theory (numbers H, RT) or clinical unit must be repeated and raised to a "C" or higher.

Required Program

Preprofessional Curriculum

All students who are considering entry into the Respiratory Therapy Program must have completed or be in the process of completing the following preprofessional curriculum. The preprofessional curriculum need not be taken at BSU.

<table>
<thead>
<tr>
<th>Course Title</th>
<th>1st</th>
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<tbody>
<tr>
<td>English 101-102</td>
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<tr>
<td>Human Anatomy &amp; Physiology</td>
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<tr>
<td>Essentials of Chemistry &amp; Lab</td>
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<td>Intermediate Algebra</td>
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<tr>
<td>Medical Terminology</td>
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College of Health Science
College of Health Science

Professional Curriculum

FIRST PROFESSIONAL (SOPHOMORE) YEAR

<table>
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<tr>
<th>Course Offerings</th>
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<tbody>
<tr>
<td>Respiratory Therapy Theory I</td>
<td>RT 203</td>
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<tr>
<td>Respiratory Therapy Theory II</td>
<td>RT 223</td>
<td>2</td>
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<tr>
<td>Respiratory Therapy Lab I</td>
<td>RT 204</td>
<td>1</td>
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<tr>
<td>Respiratory Therapy Lab II</td>
<td>RT 224</td>
<td>1</td>
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<tr>
<td>Clinical Practicum I</td>
<td>RT 208</td>
<td>3</td>
</tr>
<tr>
<td>Clinical Practicum II</td>
<td>RT 228</td>
<td>3</td>
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<tr>
<td>Cardiopulmonary Renal Physiology</td>
<td>H 220</td>
<td>4</td>
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<tr>
<td>Respiratory Therapy Nursing Arts</td>
<td>RT 207</td>
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<tr>
<td>General Pathology</td>
<td>RT 209</td>
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<tr>
<td>Emergency Procedures in Respiratory Care</td>
<td>RT 213</td>
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<td>Area I, II Core Electives</td>
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<tr>
<td>Pulmonary Function Lecture</td>
<td>RT 225</td>
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<tr>
<td>Pulmonary Function Laboratory</td>
<td>RT 226</td>
<td>2</td>
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<tr>
<td>Pulmonary Medicine I</td>
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<tr>
<td>Foundations of Physical Science</td>
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<tr>
<td>Microbiology</td>
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SUMMER

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SECOND PROFESSIONAL (JUNIOR) YEAR

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<td>Respiratory Therapy Theory III</td>
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<tr>
<td>Respiratory Therapy Theory IV</td>
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<tr>
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<td>Respiratory Therapy Lab IV</td>
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<td>Clinical Practicum III</td>
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<td>Clinical Practicum IV</td>
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<tr>
<td>Radiologic Studies of the Respiratory System</td>
<td>RT 305</td>
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<td>Pulmonary Medicine II</td>
<td>RT 327</td>
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<tr>
<td>Respiratory Cardiology</td>
<td>RT 307</td>
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<tr>
<td>Professional Seminar</td>
<td>RT 398</td>
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<tr>
<td>Principles of Pharmacotherapeutics</td>
<td>RT 301</td>
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Baccalaureate Degree Curriculum:

Prerequisite for Admission: Each student must have met and satisfactorily completed all requirements for the associate degree in Respiratory Therapy at BSU, or have an associate degree in Respiratory Therapy and/or related discipline from a comparable college/ university program, and have permission of the department chairman.

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<td>Personnel Administration</td>
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<td>Organizational behavior</td>
<td>MG 401</td>
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<tr>
<td>Intro Information Sciences</td>
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<tr>
<td>Intro Financial Accounting</td>
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<td>Electives (Area I or II)</td>
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<td>Compensation Management</td>
<td>MG 406</td>
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<td>Respiratory Therapy Colloquium</td>
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<td>Area I, II Core Electives</td>
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Course Offerings:

RT RESPIRATORY THERAPY

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<tbody>
<tr>
<td>RT 203 RESPIRATORY THERAPY THEORY I</td>
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<tr>
<td>RT 204 RESPIRATORY THERAPY LABORATORY</td>
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<td>RT 207 RESPIRATORY THERAPY NURSING ARTS</td>
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</tr>
<tr>
<td>RT 208 RESPIRATORY THERAPY THEORY II</td>
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<tr>
<td>RT 209 RESPIRATORY THERAPY THEORETICAL EXPERIENCE</td>
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<td>RT 212 EMERGENCY PROCEDURES IN RESPIRATORY CARE</td>
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<tr>
<td>RT 223 EMERGENCY PROCEDURES IN RESPIRATORY CARE</td>
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<td>RT 224 RESPIRATORY THERAPY LABORATORY</td>
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<td>RT 225 PULMONARY FUNCTION TESTING</td>
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<td>RT 226 PULMONARY FUNCTION TESTING</td>
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<td>RT 227 PULMONARY MEDICINE I</td>
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<td>RT 228 CLINICAL PRACTICUM III</td>
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Upper Division

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<td>RT 302 RESPIRATORY THERAPY THEORY</td>
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<tr>
<td>RT 304 RESPIRATORY THERAPY LABORATORY</td>
<td>(0-2-1)</td>
</tr>
<tr>
<td>RT 305 RADIOLOGIC STUDIES</td>
<td>(1-0-1)</td>
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<tr>
<td>RT 307 RESPIRATORY CARDIOLOGY</td>
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<tr>
<td>RT 308 CLINICAL PRACTICUM III</td>
<td>(0-16-4)</td>
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<tr>
<td>RT 323 CLINICAL PRACTICUM IV</td>
<td>(2-4-2)</td>
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<tr>
<td>RT 324 RESPIRATORY THERAPY THEORY</td>
<td>(2-0-1)</td>
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<tr>
<td>RT 327 PULMONARY MEDICINE II</td>
<td>(3-0-3)</td>
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<td>RT 328 CLINICAL PRACTICUM IV</td>
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<tr>
<td>RT 396 RESPIRATORY THERAPY PROFESSIONAL SEMINAR</td>
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<td>RT 401 RESPIRATORY THERAPY COLLOQUIUM</td>
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Graduate College

Dean:
Kenneth M. Hollenbaugh, Ph.D.
Business Building, Room 307
Telephone (208) 385-3648

Graduate Program Coordinators

Business: Gerald J. LaCava, Ph.D., Associate Dean, College of Business
Education: Lamont S. Lyons, Ed.D., Associate Dean, College of Education
Geology: Claude Spinosa, Ph.D., Chairman, Department of Geology and Geophysics
History: Errol D. Jones, Ph.D., Associate Professor of History
Public Affairs: Alex Pattakos, Ph.D., Associate Professor of Political Science
Raptor Biology: Robert C. Rychert, Ph.D., Professor, Department of Biology

Programs

Boise State University offers the graduate degrees of Master of Business Administration, Master of Arts/Science in Education, Master of Public Affairs, Master of Science in Raptor Biology, Master of Arts in History, and a Cooperative Master of Science in Geology in conjunction with Idaho State University.

Areas of Emphasis


The Master of Public Affairs Degree Program has three areas of emphasis: (1) General, (2) Human Services, and (3) Criminal Justice.

Graduate Faculty

The graduate faculty is comprised of those full-time faculty who have been approved by the Graduate Council to teach graduate level courses, participate in the conduct of the graduate programs, and supervise graduate students. Members of the graduate faculty are reviewed on a three year cycle to document their participation in graduate education activities.

Part-time faculty who are approved by the Graduate Council to teach a graduate course are appointed as adjunct graduate faculty. Such appointments are for specific assignments and are renewable but not perpetual.
General Information for Graduate Students

Application for admission to the graduate programs or general graduate study as an unclassified graduate may be made at any time. It is recommended, however, that at least two months before the initial enrollment, the Graduate Admissions Office will have received the application for admission, $10.00 matriculation fee, official transcripts of all undergraduate and graduate work, and any predictive exam scores. This will provide sufficient time to process the application prior to the semester the applicant wishes to commence graduate study. The transcripts are to be sent directly to the Boise State University Graduate Admissions Office by the Registrar of the college or university which the applicant previously attended. For that purpose the applicant should communicate with the Registrars concerned and then allow them sufficient time to process and mail the transcripts. Applicants are strongly advised to submit the application for admission and the $10.00 matriculation fee prior to submitting the additional documents.

All documents received by the University in conjunction with such applications for admission become the property of Boise State University. Under no circumstances will they be duplicated except for University advisement, nor the original returned to the applicant or forwarded to any agency or other college or university.

Admission to the Graduate College

A student may be admitted to the Graduate College at Boise State University when the following admissions criteria have been met:

1. The applicant has earned a baccalaureate degree from an accredited institution, or furnishes proof of equivalent education.
2. The applicant has maintained a grade point average which meets the minimal requirements of the college in which he wishes to enroll.
3. Completion of the predictive examination required by the department as listed under department criteria.
4. Recommendation for admission by the department in which the applicant expects to work and approval by the Graduate College.

Graduate Status Classification for Matriculated Students: Applicants may be admitted to the Graduate College at Boise State University under two classifications.

Regular Status: The applicant has been admitted with full graduate status into a graduate degree program and has received official institutional notification to this effect.

Provisional Status: Applicants may be admitted to the Graduate College with provisional status if the department or academic unit in which they plan to study requires additional evidence of their qualification for admission with regular status. No student may maintain provisional status indefinitely. The department or academic unit concerned will normally make a final determination of students with provisional status by the time they have completed twelve credits of approved study.

Graduate Courses for Undergraduate Credit

Boise State University seniors may take up to two 500 level courses for Upper Division credit applied to their baccalaureate degree program. The necessary permit forms are available through the Graduate Evaluators Office. Determination of what constitutes a senior for the purpose of this policy is left to the Graduate Dean.

Graduate Credit for Seniors

A Boise State University senior with the approval of the department in which he plans to work and the Graduate Dean, may enroll for graduate credit during his senior year insofar as these credits will not prejudice his graduation during that academic year. The necessary Senior Permit Forms are available at the Graduation Evaluators Office. Credits earned in this manner are "reserved" to count toward a graduate degree at BSU.

Scholarship Requirements

Academic excellence is expected of students doing graduate work. A student whose academic performance is not satisfactory may be withdrawn from the graduate program by the Dean of the Graduate College upon the recommendation of the department or academic unit concerned.

To be eligible for a degree in the Graduate College, a student must achieve a grade point average of B (3.00) or better in all work exclusively of deficiencies, specifically included in his program of study. No grade lower than B may be accepted for any 300 or 400 level courses in a graduate program. Grades below C cannot be used to meet the requirements of a graduate degree. Grades on transfer work will not be included in computing grade point average.

Repeat, Retake Policy: A student who earns a grade of D in a graded 300 level course at BSU may include no more than one repeated course toward a Master's Degree Program. A student who earns a grade of F may not count a retaken course toward any Master Degree Program at Boise State University. Therefore, a student who gets an F in a required course is automatically excluded from further Master degree work. With a D in one of these courses there is a single chance of redemption.

Credit Requirements: A minimum of thirty semester credits of coursework approved by the graduate student's supervisory committee is required. More than thirty semester credits may be required in certain fields.

Supervisory Committee Assignment: Upon admission of the student with regular graduate status, a supervisory committee, consisting of a chairperson and other faculty members, will be appointed by the department fielding the program. This supervisory committee or the advisor, as determined within each degree program of study, will establish with the student a program of study, direct any thesis or graduate projects, and administer final examination(s).

Students admitted with provisional status will be assigned a temporary advisor who will be responsible for building a tentative program of studies. This advisor will guide the student with respect to meeting the stipulations of the provisional admission. Once the provisional stipulations have been satisfactorily met by the student, the department concerned will recommend to the Dean of the Graduate College that the student be admitted with regular graduate status.

Residence Requirements: A minimum of twenty-one semester credits of approved graduate work taken on the University campus is required. This requirement does not apply to students enrolled in any inter-institutional cooperative graduate program offered jointly by BSU and the other Idaho universities.

Transfer of Credits: A maximum of nine semester graduate credits taken at other institutions may be transferred for credit toward a Master degree provided the courses are an acceptable part of the program of study planned by the student's supervisory committee. Such courses must have been satisfactorily met in an accredited college or university. Only courses with A or B grade may be transferred to Boise State University for application to a graduate degree. In general the transfer of extension credits is discouraged. Exception may be made by departments after a detailed examination of the specific courses taken. No correspondence course will be accepted for graduate credit. All appropriate graduate work taken through interinstitutional cooperative graduate programs, if approved by the college fielding the program, can be accepted as residence credit.

Challenge Policy: The provisions of the challenge policy stated in the Catalog Section, "Admission Requirements to the College" under subsection "Challenging Courses, Granting Credit by Examination" apply to graduate courses. In particular, the decision to allow or require any challenge will be made by the department fielding the course to be challenged. For interdisciplinary courses, the decision will be made by the college officer in charge of the graduate program to which the course applies.

Program Admission and Continuation Requirements

Application for Predictive Examinations: Predictive examination scores may be required by certain departments. With respect to the departments which stipulate as part of the admissions criteria performance scores from predictive examinations, it is necessary that application be made without delay to take the examination. Education and Public Affairs students are not required to take a
Students wishing to pursue graduate study in Business Administration should contact the Office of the Dean, College of Business, Boise State University, or the Graduate Admissions Office to secure the forms necessary to make application for taking the predictive examination called the GMAT. Every effort should be made to take the GMAT as soon as possible because students will not be given program status before the GMAT results are reported. Courses taken before the student is admitted (i.e., "Unclassified Status" courses) will not necessarily be allowed toward the MBA even if the student is admitted subsequently.

Program Development Form: Graduate students with regular or provisional status will complete a Program Development Form with their advisor or committee before the end of the first academic period (summer, fall or spring) in which they take graduate work at Boise State University, after having been notified of admission with or provisional status.

The Program Development Form will be available from the colleges offering graduate degree programs. The advisor or committee will file the Program Development Form with the Graduate College upon completion. Each change in program must be completed by filing a new Program Development Form showing the changes from the previous form.

Any course being offered as transfer credit, as credit reserved, or as residence credit through any inter-institutional cooperative program must be claimed at the time the Program Development Form is originally filed, or before the end of the first academic period (summer, fall or spring) after which the credit has been earned, whichever is the earlier date.

It is the responsibility of the graduate student to keep all program changes up to date for a graduate degree.

Time Limitations: All work offered toward a Master's degree from Boise State University must be completed within a period of seven calendar years. The seven-year interval is to commence with the beginning of the oldest course (or other academic experience) for which credit is offered in a given Master Degree Program, and the interval must include the date of graduation when the Master degree from BSU is given.

Foreign Language Requirements: Language requirements are determined by the department concerned. If a foreign language is required, students must demonstrate that they possess a reading knowledge of a language specified by the department.

Thesis Requirements: The requirement of a thesis or similar project is determined by the department or interdisciplinary unit concerned. The final copy of the thesis must be reviewed by the supervisory committee and submitted to the Dean of the Graduate College at least three weeks before commencement.

Candidacy: Students should apply for admission to candidacy and graduation as soon as they have completed twelve hours of graduate work with a grade point average of at least 3.00 in an approved graduate program of study, has removed all listed deficiencies, and has met any specific foreign language requirements. Candidacy involves specifying, on the appropriate form, the list of courses and projects which comprise the student's program. Changes in the planned program after admission to candidacy must be recommended in writing by the student's committee or advisor and be approved by the Dean of the Graduate College.

Final Examination Requirements: The requirements of a final examination, written, oral, or both, in any non-thesis non-project program is optional with the department or interdisciplinary unit which field the student's program. When the examination is required, it is administered by the unit concerned. The dates for the examinations are set by the Graduate College once each semester and summer session. They are listed in the calendar of the BSU catalog. A student is not eligible to apply for the final examination until he has been admitted to candidacy (filed the candidacy and graduation form).

Failure in the examination will be considered terminal unless the supervisory committee recommends, and the Dean of the Graduate College approves, a re-examination. Only one re-examination is permitted. At least three months must elapse before a re-examination may be scheduled.

The requirement of a final examination in defense of any thesis or project is optional with the department or interdisciplinary unit concerned. When required, a final examination in defense of the thesis or project must be conducted at least three weeks before commencement. On a final examination in defense of a thesis or project, an additional member, who may be from outside the department or college, may be appointed by the Graduate Dean at his discretion. Application for the final comprehensive examination(s) is made through the office of the dean of the college fielding the program.

Limitations on Student Course Loads: Graduate students seeking to take courses for graduate credit only in the evening or only in the early morning and in the evening, may not take more than a total of two such courses in any one semester or summer session. Waiver of this rule may be granted by the Dean of the Graduate College with the explicit recommendation of the dean of the college fielding the program.

Course Numbering System: Courses numbered 500 and above are intended primarily for graduate students. The number designates the educational level of the typical student in the class, i.e., he has graduated from college. Some graduate courses have a standard numbering system throughout the university.

University-Wide Numbers of Graduate Offerings:

- 580-590 Selected Topics
- 590 Practicum
- 591 Project
- 592 Colloquium
- 593 Research and Thesis
- 594 Extended Conference or Workshop (graded A-F)
- 595 Reading and Conference
- 596 Directed Research
- 597 Special Topics
- 598 Seminar
- 599 Short-Term Conference or Workshop*

*Graded Pass or Fail. This number is available in any semester or session for courses meeting 3 weeks or less.

Credit Limitation in Courses Graded Pass or Fail and Directed Research: A maximum of six credits earned with a grade of P will be allowed toward the credit requirements for a Master's degree at Boise State University. Master's programs at Boise State University may include directed research credits, as the discretion of the graduate student's supervising committee or professor, through a limit of nine credit hours, with no more than six credits in any one semester.
The College of Business has a limitation of three credits of internship and/or Directed Research for MBA students.

**Undergraduate Courses for Graduate Credit:** Other courses than graduate, numbered at the 300 or 400 levels, may be given g or G designation to carry graduate credit. The department or college concerned will have the right to limit the number of g or G credits which can count toward any degree for which it has responsibility, and in no case can more than one-third of the credits in a degree program be in courses at the 300 or 400 level. No course numbered below 500 carries credit unless the g or G is affixed.

1. **g courses carry graduate credit only for graduate students in majors outside of the area of responsibility of the department or college.**
2. **G courses carry graduate credit for students both in the department or college and for other students as well.**
3. **Graduate students enrolled in G or g courses will be required to do extra work in order to receive graduate credit for the courses.**

**Application for Graduate Degree**

The last step in completing a graduate program consists of arranging for final record checking. To accomplish this, one completes the form "Application for Graduate Degree" which can be obtained from the Graduate Admissions Office. This form, with all appropriate signatures, is to be submitted to the Graduation Office along with a $10.00 diploma fee. The form must be submitted by the deadline set each semester for applying for graduation. Check the Academic Calendar for the deadline date.

**Graduate Programs, College of Business**

**Master of Business Administration**

**Objectives**

The objective of the Boise State University program leading to the graduate degree is to further prepare candidates for careers in their chosen fields. The MBA degree empowers the student to take a traditional approach of preparing students for general management, with a common body of functional knowledge given to all students. Once a student satisfies the functional core of courses, electives to achieve a minor degree of concentration are also possible.

**Matriculation Requirements**

**General Prerequisites for Applicants:** Admission will be granted to applicants who hold a Bachelor's degree from an accredited college or university and who meet the standards set by the College of Business of Boise State University. Common to all programs is a foundation of course work in basic fields of Business Administration. Students holding a Bachelor's degree in Business normally will have completed most of these requirements as part of their undergraduate program. The Master of Business Administration program is also designed to serve the student who has completed his or her Bachelor's degree in non-Business fields such as the Sciences, Engineering and the Liberal Arts.

**Specific Prerequisites for Applicants:** All applicants must meet the following undergraduate requirements or must fulfill these requirements prior to enrolling in the advanced classes. (New applicants for the programs should furnish documentation evidence of GMAT scores and copies of official transcripts upon initial application. For fall enrollment, students should arrange to take the GMAT by July. For spring enrollment, the GMAT should be taken no later than the October or November test date.)

1. Possession of a Bachelor's degree from an accredited institution.
2. Demonstration of satisfactory academic competency by virtue of acceptable scores achieved by either of the following formulae: 1) 200 x overall GPA plus GMAT score must equal 1050 minimum or 2) 200 x junior/senior GPA plus GMAT score must equal 1100 minimum.
3. For foreign students, in addition to the above formulae minima, a score of 525 on the TOEFL, or its equivalent, is necessary.
4. All applicants must have two years significant work experience or a 500 minimum GMAT score.
5. All applicants must be accepted by the Graduate College of Boise State University in order to achieve the Master degree.

**Degree Requirements**

**The MBA Degree**

The Master of Business Administration degree consists of a maximum of 54 semester hours of credit from the offerings listed on the following pages or other graduate courses suitable to an MBA degree, as accepted by the MBA Admissions Committee.

**Foundation Courses**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>FI 521 ACCOUNTING FOR MANAGERS</td>
<td>3</td>
</tr>
<tr>
<td>DS 513 BUSINESS STATISTICS</td>
<td>3</td>
</tr>
<tr>
<td>AC 511 ACCOUNTING FOR MANAGERS</td>
<td>3</td>
</tr>
<tr>
<td>DS 513 BUSINESS STATISTICS</td>
<td>3</td>
</tr>
<tr>
<td>DS 523 PRODUCTION AND SYSTEMS MANAGEMENT</td>
<td>3</td>
</tr>
</tbody>
</table>

Students may select a maximum of 6 credit hours from the 400 level "G" courses from the undergraduate College of Business program. Only those courses listed on the following pages are approved. Advisors should be consulted regarding those courses.

Under certain conditions with the approval of the MBA program coordinator and the Department head concerned, MBA students may earn up to a maximum of 3 credit hours of Directed Research and/or Internship credits which apply to graduation requirements.

**Course Offerings**

**MBA-Courses Descriptions:**

**FOUNDATION COURSES**

- **AC 511 ACCOUNTING FOR MANAGERS (3-0-3) (F).** The student can expect to develop a working knowledge of financial and managerial accounting tools, techniques and procedures.
- **DS 513 BUSINESS STATISTICS (3-0-3) (F).** This course examines the use of statistics in decision-making. Presentation and summarization of data, estimation, hypothesis testing, regression analysis, analysis of variance, time series and forecasting, and non-parametric methods.
- **DS 523 PRODUCTION AND SYSTEMS MANAGEMENT (3-0-3) (S).** This course stresses the management of the production function: analysis, design and layout, scheduling, time and motion study, quality control, and material acquisition. Also included are management information systems and the system's development process from feasibility study through system implementation. Prerequisite: DS 513.
- **EC 514 ECONOMIC THEORY AND ANALYSIS (3-0-3) (F).** This course is an accelerated, integrated introduction to economic analysis of the price system and the aggregate performance of developed economies. Supply and demand, basic market structures, income distribution, employment, inflation, growth and international trade.
- **FI 525 CORPORATE FINANCE (3-0-3) (S).** Concepts and techniques of corporate institutional and investment finance are examined. These include time value of money, corporate banking relationships, current assets management, and efficient markets. Prerequisite: AC 511, DS 513.
- **GB 516 LAW FOR MANAGERS (3-0-3) (F).** This course explores the history and development of the partnership and corporate forms of business organization, and the legal environment which creates and regulates a manager's duties toward the corporation, employees, shareholders, and members of the general public.
- **MG 528 ORGANIZATIONAL THEORY AND BEHAVIOR (3-0-3) (S).** This course covers the process of planning, organizing, directing, and controlling. Main topics include theories of organizational performance, structure and design, interpersonal and leadership skills. Emphasis is placed on application of theory to business situations and development of interpersonal skills.
- **MK 529 MARKETING MANAGEMENT (3-0-3) (S).** This course includes a comprehensive examination of the activities and models used in marketing. It also includes identifying and interpreting buyers' needs, market segmentation, and designing a balanced marketing program.
Graduate College

ADVANCED COURSES

AC 531 ACCOUNTING - PLANNING AND CONTROL (3-0-3) (F/S). This course includes the study of the planning and control processes to assist in the making of business decisions. Problems and cases are considered.Cost planning and analysis, cost and analysis for pricing and capital budgeting. The overall objective is an understanding of techniques of cost planning and control. Prerequisite: AC 511 or equivalent.

DS 533 DECISION ANALYSIS (3-0-3) (F/S). A study of decision-making in complex situations. Aids for identifying and modeling the decision problem, analyzing and responding to multiple objectives, utilizing subjective inputs, and evaluating and incorporating information. Prerequisite: DS 513 or equivalent.

FI 545 ADVANCED FINANCIAL MANAGEMENT (3-0-3) (F/S). An analysis of financial planning and control in the dynamic environment of changing financial markets. Risk-return analysis, capital budgeting, debt-equity financing, dividend policy, and merger and acquisitions are major topics. Prerequisites: FI 525, EC 514 or equivalent.

GB 536 BUSINESS IN A GLOBAL SOCIETY (3-0-3) (F/S). This course is an examination of the interaction between business and the economic, social, political, and legal order on the national and international basis. A case approach is used to focus attention on the factors of this broad environment on managers. Some ethical issues and cross-cultural issues are explored. Prerequisite: GB 516 or equivalent.

GB 546 STRATEGIC MANAGEMENT (3-0-3) (F/S). This capstone course integrates concepts, practices and methods in strategic planning and environmental analysis. Emphasis is on the evaluation of existing strategy, business risks and opportunities and on the development of decision processes and decision techniques for the executive and managerial controls. Prerequisites: AC 531, DS 533, FI 545, MK 539 and MG 538.

MG 538 MANAGING PEOPLE IN ORGANIZATIONS (3-0-3) (F/S). This course is a systematic approach to the major phases of human resource management within organizations, including knowledge bases and theories; problems, constraints; opportunities; program controls, evaluations and costs; and results of effective and efficient human resources management. Prerequisite: MG 528 or equivalent.

MK 539 STRATEGIC MARKETING MANAGEMENT (3-0-3) (F/S). An analysis and integration of marketing concepts and models with organizational and environmental constraints. Emphasis on identifying opportunities, problems, selection, and development of alternatives. Also formulation and implementation of strategies, plans, and programs. Consumer, industrial, institutional and international markets included. Prerequisite: MK 529 or equivalent.

MBA—Elective Courses

AS 512 COMMUNICATION TECHNIQUES FOR MANAGERS (3-0-3) (Intermittent). Analysis of management communication requirements in business. Development of a critical sense and analytical ability through evaluation of research, reports, and case studies. Writing and speaking skills emphasized through written reports, oral presentation and small group activities.

DS 512 STATISTICAL METHODS FOR BUSINESS (3-0-3) (Intermittent). The application of the techniques and the reason for their employment in decision processes. Computer application programs are employed to assist in the learning process. Topics generally covered include: multiple regression analysis, forecasting and multivariate analysis. Prerequisite: DS 523 or equivalent courses.

DS 514 OPERATIONS RESEARCH METHODS FOR DECISION MAKING (3-0-3) (Intermittent). An introduction to operations research, applying quantitative tools and interpreting the results. Particular attention is given to using the computer to analyze quantitative models. Typical areas covered are: linear programming, network models, and inventory control theory. Prerequisite: DS 523 or equivalent courses.

EC 550 ECONOMICS OF PUBLIC POLICY (3-0-3) (F/S). Contribution of economic analysis to the justification, design and implementation of public policy. The issue surrounding the need for public policy in a private property, market economy and the benefits and costs associated with government intervention. The relationships between the goals and the instruments of U.S. economic policy. Prerequisite: EC 514.

IS 542 INFORMATION SYSTEMS (3-0-3) (F). This course is a study of the impact of the computer on managers and on the environment in which managers work. Topics include data-base, MIS, the impact of information systems on management and the management decision process, and the actual management and control of information systems. Selected computer applications are explored.

MG 541 HUMAN RESOURCE MANAGEMENT (3-0-3) (F/S). Effective management of human resources includes discussion of the supervisory processes conducive to reducing labor costs and increasing productivity. Special attention is given to human resource planning, recruitment and employment constraints which limit managerial actions. Techniques for effectively functioning within these constraints.

MK 529 MARKETING PROBLEMS (3-0-3) (Intermittent). Analytical approach to marketing problem solving and decision making. Covers market definition, personal selling, advertising and sales promotion, distribution channels, strategy formulation, product development procedures, and customer services. Case study approach is utilized.

Selected Topics: Contemporary topics courses offered intermittently.

AC 580 SELECTED TOPICS - Accounting (3-0-3).

EC 582 SELECTED TOPICS - Economics (3-0-3).

FI 583 SELECTED TOPICS - Finance (3-0-3).

IS 581 SELECTED TOPICS - Information Systems (3-0-3).

MG 584 SELECTED TOPICS - Industrial Psychology (3-0-3).

MG 585 SELECTED TOPICS - Management (3-0-3).

MK 586 SELECTED TOPICS - Marketing (3-0-3).

590 INTERNSHIP. Available on a selective, limited basis. MBA students should consult with pertinent faculty and coordinator.

596 DIRECTED RESEARCH (1-3 credits). Involves special projects undertaken by the student, consisting of individual work suited to the needs and interests of the student. The course embodies research, discussions of the subject matter and procedures with a designated professor, and a documented paper covering the subject.

Undergraduate "G" Courses: At least two of the following courses may be taken for graduate credit if cleared by Graduate Program Coordinator. See appropriate department listings for complete course descriptions.

AC 440G ACCOUNTING THEORY (3-0-3). (S).

DS 408G OPERATIONS MANAGEMENT (3-0-3). (F).

EC 421G-422G ECONOMETRICS (3-0-3) (F/S).

FI 410G WORKING CAPITAL MANAGEMENT (3-0-3). (S).

FI 411G CAPITAL BUDGETING AND PLANNING (3-0-3). (F).

FI 420G MANAGEMENT OF FINANCIAL INSTITUTIONS (3-0-3). (F).

FI 421G DECISION PROCESSES IN BANKING (3-0-3). (S).

FI 450G INVESTMENT MANAGEMENT (3-0-3). (F).

GB 441G FRONTIERS IN FINANCIAL MARKETS (3-0-3). (S).

GB 441G GOVERNMENT AND BUSINESS (3-0-3) (F).

MK 415G MARKETING RESEARCH (3-0-3). (F/S).

Graduate Programs, College of Education

Master of Arts or Science in Education

A Master's degree in Education with emphases in Art, Curriculum & Instruction, Early Childhood, Earth Science, English, Mathematics, Music, Reading and Special Education is presented through the Department of Teacher Education, the related subject departments and the College of Education.

Application for admission to the graduate program in Education may be made at any time. It is recommended, however, that at least two months before the first enrollment, the Graduate Admissions Office will have received the application for admission, $10.00 matriculation fee and official transcripts of all undergraduate and graduate work. The transcripts are to be sent directly to the Boise State University Graduate Admissions office by the Registrar of the college or university which the applicant previously attended.

Admission will be granted to applicants who hold a Bachelor's degree from an accredited college or university and who have some professional relationship to instruction. Candidates must show promise of meeting the standards set by the College of Education and participating departments as well as the specific regulations of the particular program for which they apply.

Applicants for regular status in the program must have maintained a GPA of at least 3.00 for the last two years of undergraduate study, or an overall GPA of 2.75. Provisional status may be granted to an applicant not meeting the listed requirements, if warranted and deemed appropriate.

The name of the faculty member who will serve as chairperson of the candidate's advisory committee is listed in the letter of acceptance to the applicant. Candidates should contact the assigned committee chairperson (advisor) as soon as possible in order to plan a program.Credits taken prior to such planning are subject to the review and approval of the committee chairperson and the Associate Dean of the College of Education prior to acceptance in the planned program.
A maximum of nine semester graduate credits may be accepted from other accredited graduate schools upon approval of the chairperson of the candidate's committee and the Associate Dean of the College of Education. A maximum of six semester credits of pass/fail credits will be allowed in the degree program.

Six semester hours of credit will be open for selection in any area of the University's course offerings that will enable the candidate to strengthen a competency identified in her/his program. The candidate, in cooperation with the advisor, will choose courses which will meet the individual's program objectives.

Those students selecting one of the following areas of emphasis will follow the procedures set forth by respective departments: Art, Earth Science (Department of Geology/Geophysics), English, Mathematics and Music.

**Graduate Core:**
- TE 570 Graduate Core-Issues in Education: 3
- TE 563 Conflicting Values in Education: 1
- Elective Courses (Select two from the following): 2
  - TE 561 Law for the Classroom Teacher: 1
  - TE 562 School Organization and Finance: 1
  - TE 564 Instructional Techniques--Secondary School: 1
  - TE 565 Interpreting Educational Research: 1
  - TE 566 Learning Theory and Classroom Instruction: 1
  - TE 568 Techniques of Classroom Management: 1
  - TE 569 Testing and Grading: 1
  - TE 573 Instructional Techniques--Elementary School: 1

Additional credits to the above will be determined by the respective departments.

**Master of Arts in Education**

**Department of Teacher Education**

**Option Requirements**

The Education Graduate Program provides two options for those selecting one of the following emphasis: Curriculum and Instruction, Early Childhood, Reading, or Special Education: Option I Thesis/Project and Option II Written Comprehensive Examination.

**OPTION I**

(Thesis/Project)

Graduate Core: 6
- TE 551 Fundamentals of Education Research: 3
- TE 591 or 593 Thesis or Project: 6
- Approved electives and specific requirements: 18

TOTAL: 33

A Thesis/Project, as mutually agreed upon by the candidate and the committee, implies a research emphasis with a thesis format. Selection of a project required. Selection of a thesis implies a project related to instruction, curriculum, or some other aspect of an educational program.

**OPTION II**

(Comprehensive Examination)

Graduate Core: 6
- TE 559 Philosophy of Education: 3
- TE 551 Fundamentals of Educational Research: 3

NOTE: Students electing Option II must take a research class, which may be TE 565 Interpreting Educational Research (1 credit) as part of core or TE 551 Fundamentals of Educational Research (3 credits).

Approved electives and specific requirements: 24

TOTAL: 33

A Comprehensive Written Examination is required at the end of the coursework. This examination is tailored by each candidate's committee specifically for that candidate following guidelines established by the department. After the candidate has written the examination, the committee will meet with the candidate to review the examination prior to final approval or rejection.

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**Curriculum and Instruction Emphasis**

| 1. Graduate Core | 6 |
| 2. TE 591 Curriculum Planning and Implementation | 3 |
| 3. TE 582 Analysis and Improvement of Instruction | 3 |
| 4. Content area courses | 9 |
| 5. Elective options (choose I or II, below) |
| I. Thesis-Project |
| TE 551 Fundamentals of Ed. Research | 3 |
| TE 591 or 593 Thesis or Project | 6 |
| Approved electives | 3 |
| II. Comprehensive Written Examination |
| TE 559 Philosophy of Education | 3 |
| TE 551 Fundamentals of Ed. Research | 3 |
| Approved electives | 9 |

TOTAL: 33

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**Early Childhood Emphasis**

| 1. Graduate Core | 6 |
| 2. TE 543 Early Childhood: Readings | 3 |
| 3. TE 544 Early Childhood: Advanced Child Development | 3 |
| 4. TE 546 Early Childhood: Environments & Programs | 3 |
| 5. TE 547 Early Childhood: Language Acq & Development | 3 |
| 6. TE 590 Practicum: Early Childhood | 2-4 |
| 7. Option electives (choose 1 or II below) |
| I. Thesis/Project |
| TE 551 Fundamentals of Ed. Research | 3 |
| TE 591 or 593 Thesis or Project | 6 |
| Approved electives | 5-7 |
| II. Comprehensive Written Examination |
| TE 559 Philosophy of Education | 3 |
| TE 551 Fundamentals of Ed. Research | 3 |
| Approved electives | 11-13 |

TOTAL: 33

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**Reading Emphasis**

| 1. Graduate Core | 6 |
| 2. TE 501 Foundations of Reading Instruction | 3 |
| 3. TE 502 Diagnosis & Correction of Read. Prob. - Elem | 3 |
| 4. TE 504 Seminar in Reading Education | 3 |
| 5. Option electives (choose 1 or II below) |
| I. Thesis/Project |
| TE 551 Fundamentals of Ed. Research | 3 |
| TE 591 or 593 Thesis or Project | 6 |
| Approved electives | 6 |
| II. Comprehensive Written Examination |
| TE 559 Philosophy of Education | 3 |
| TE 551 Fundamentals of Ed. Research | 3 |
| Approved electives | 3 |

TOTAL: 33

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**For Those Primarily Responsible for Elementary School Instruction**

| 1. Graduate Core | 6 |
| 2. TE 501 Foundations of Reading Instruction | 3 |
| 3. TE 502 Diagnosis & Correction of Read. Prob. - Elem | 3 |
| 4. TE 504 Seminar in Reading Education | 3 |
| 5. Option electives (choose 1 or II below) |
| I. Thesis/Project |
| TE 551 Fundamentals of Ed. Research | 3 |
| TE 591 or 593 Thesis or Project | 6 |
| Reading electives | 6 |
| II. Comprehensive Written Examination |
| TE 559 Philosophy of Education | 3 |
| TE 551 Fundamentals of Ed. Research | 3 |

TOTAL: 33

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### Special Education Emphasis

#### For Students Interested in an Emphasis in Educationally Handicapped and/or Severe Retardation

<table>
<thead>
<tr>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Graduate Core</td>
<td>6</td>
</tr>
<tr>
<td>2. TE 514 Counseling/Consulting Skills for Educators</td>
<td>3</td>
</tr>
<tr>
<td>4. TE 523 Emotionally Disturbed Child in the Classroom</td>
<td>3</td>
</tr>
<tr>
<td>5. TE 590 Practicum: Special Education</td>
<td>3</td>
</tr>
<tr>
<td>6. TE 534 Issues and Trends in Special Ed.</td>
<td>3</td>
</tr>
<tr>
<td>7. Option electives (choose 1 or II below)</td>
<td></td>
</tr>
<tr>
<td>I. Thesis/Project</td>
<td></td>
</tr>
<tr>
<td>TE 551 Fundamentals of Ed. Research</td>
<td>3</td>
</tr>
<tr>
<td>TE 591 or 593 Thesis or Project</td>
<td>3</td>
</tr>
<tr>
<td>Reading electives</td>
<td>3</td>
</tr>
<tr>
<td>Approved electives</td>
<td>6</td>
</tr>
<tr>
<td>II. Comprehensive Written Examination</td>
<td></td>
</tr>
<tr>
<td>TE 559 Philosophy of Education</td>
<td>3</td>
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<tr>
<td>OR</td>
<td></td>
</tr>
<tr>
<td>TE 551 Fundamentals of Ed. Research</td>
<td>3</td>
</tr>
<tr>
<td>NOTE: Students selecting Option II must take a research class, which may be</td>
<td></td>
</tr>
<tr>
<td>TE 565 Interpreting Educational Research (1 credit) as part of core or TE 551</td>
<td></td>
</tr>
<tr>
<td>Fundamentals of Educational Research (3 credits).</td>
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<tr>
<td>Reading electives</td>
<td>5</td>
</tr>
<tr>
<td>NOTE: Students should choose TE 407G Reading in the Content Subjects if they</td>
<td></td>
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<tr>
<td>have not had a similar 3 credit course.</td>
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<tr>
<td>Approved electives</td>
<td>6</td>
</tr>
<tr>
<td>TOTAL 33</td>
<td></td>
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</tbody>
</table>

### Second Master's Degree

If you earned a master's degree from Boise State University you may earn a second degree in another area of emphasis.

Guidelines for the Award of a Second Master's Degree.

1. A candidate must meet all program requirements prescribed by the second master's curriculum.
2. Program requirements for the second degree that have already been met in the program for the first degree awarded may be counted towards the second degree at the discretion of the student's graduate committee.
3. A minimum of 21 credits of new course work shall be required for the second degree.
4. The seven-year time limit applies to all courses to be counted towards the second degree.

#### Planned Fifth Year

Purpose: Continuing education is a vital element in maintaining professional competence among teachers. Yet not all teachers desire the structure and demands imposed by a master's program. The purpose of the Planned Fifth Year is to enable and encourage teachers to further their professional growth and meet career goals through a planned and intellectually rigorous program of study. The goals of the program are largely determined by the candidate. The candidate may choose 1) to broaden or deepen knowledge and skills related to assignment teaching, or 2) to seek an additional endorsement or advanced certification.

### Admission Requirements

1. Be a certified teacher.
2. Meet the admission standards of graduate study (2.75) overall G.P.A. or 3.00 in the last two years of study.

#### Program Requirements

- All students will complete thirty (30) credits including:
  - 1. TE 582 Analysis and Improvement of Instruction
  - 2. Graduate Core OR TWO of the following courses
  - 3. TE 590 Practicum: Special Education
  - 4. TE 581 Curriculum Planning and implementation
  - 5. A minimum of 9 credits of content courses
  - 6. Electives

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<td>1. TE 450G Behavior Intervention Techniques</td>
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</table>
Course Offerings

**TE PHYSICAL EDUCATION**

**Undergraduate**

See appropriate department listing for detailed course descriptions of these undergraduate courses which may be taken for graduate credit.

**PE 401G PSYCHOLOGY OF ACTIVITY (3-0-3) (F, S)**

**Graduate**

**PE 521 ELEMENTARY PHYSICAL EDUCATION ACTIVITIES (3-0-3) (S)**

**Undergraduate**

See appropriate department listing for detailed course descriptions of these undergraduate courses which may be taken for graduate credit.

**PE 402G ADVANCED ATHLETIC TRAINING (3-3-3)**

**Graduate**

**PE 594 PHYSICAL EDUCATION IN SPECIAL EDUCATION (2-0-2) (S)**

The course is designed to assist teachers in the Reading Education Center and prepares a case report. PREREQ: TE 501 or PERM/INST.

**P PSYCHOLOGY**

**Undergraduate**

See appropriate department listing for detailed course descriptions of these undergraduate courses which may be taken for graduate credit.

**P 421G PSYCHOLOGICAL MEASUREMENT (3-0-3)**

**Graduate**

**P 502 ADVANCED EDUCATIONAL PSYCHOLOGY (3-0-3)**

A study of contemporary issues involving both theoretical and methodological considerations in the history and systems of educational psychology will be given. Special emphasis will be given to group behavior in terms of principles relevant to educational objectives. PREREQ: P 101 and P 325. Offered on demand.

**P 503 INDIVIDUAL TESTING PRACTICUM (3-0-3)**

Emphasis on administering and scoring intelligence tests and on test interpretation. PREREQ: M 115-116, P 305, P 421, PERM/INST. Offered odd numbered years.

**P 504 ANALYSIS OF THE INDIVIDUAL (3-0-3)**

A study of techniques used in analyzing the individual with emphasis on the elementary level. The course includes observational techniques, recording of behavior, behavioral analysis, interviewing and use of test information. PREREQ: M 115-116, P 305, P 421, PERM/INST. Offered odd numbered years.

**P 505 PERSONALITY DEVELOPMENT (3-0-3)**

Critical consideration of the main personality theories, particularly those which emphasize current concepts regarding learning, perception and motivation. Development of the interaction of emotional and cognitive factors in personality development at different age levels is pursued. PREREQ: P 101. Offered on demand.

**TE TEACHER EDUCATION**

**Undergraduate**

See appropriate department listing for detailed course descriptions of these undergraduate courses which may be taken for graduate credit.

**TE 407G READING IN THE CONTENT SUBJECTS (3-0-3) (F/S)**

**Graduate**

**TE 423G TEACHING THE MODERATELY AND SEVERELY HANDICAPPED (3-0-3)**

**TE 458G BEHAVIOR INTERVENTION TECHNIQUES (3-0-3)**

**TE 501 FOUNDATIONS OF READING INSTRUCTION (3-0-3) (F/S)**

Students in this class study the theoretical constructs of reading, the psychological and pedagogical foundations of reading instruction, and learn to create and improve reading education programs in elementary and secondary classrooms.

**TE 502 DIAGNOSIS AND CORRECTION OF READING PROBLEMS (3-0-3) (F/S)**

Diagnosis and standardized testing procedures and corrective techniques will be learned, practiced, and then applied to a child in the Reading Education Center. All techniques are those a classroom teacher would utilize.

A case report will culminate the course. PREREQ: TE 501 or PERM/INST.

**TE 503 CLINIC FOR READING SPECIALISTS (3-0-3)**

This course emphasizes more intricate diagnostic techniques and remediation procedures. Alternative testing methods will be presented. Each participant works with a child under supervision in the Reading Education Center and prepares a case report. PREREQ: TE 502 or PERM/INST.

**TE 504 SEMINAR IN READING EDUCATION (3-0-3) (F/S)**

This course covers three areas of reading education: involvement in a professional reading association, teaching, and doing research in reading education. PREREQ: TE 502 or TE 508 or permission of instructor.

**TE 505 INDIVIDUAL TESTS & MEASUREMENTS (3-0-3)**

An intensive investigation is pursued in the area of measurement theory followed by practical applications in individual testing and student diagnosis.

**TE 508 DIAGNOSIS AND CORRECTION OF READING PROBLEMS - SECONDARY (3-0-3) (F/S)**

This course is designed for the teacher of the required high school reading course and any other high school course dealing with students with reading problems.

**TE 510 ADVANCED PRACTICES AND PRINCIPLES IN TEACHING SOCIAL SCIENCE (3-3)**

A comprehensive study of the practices and principles in social science education, including objectives, social problems, unit development, work-study skills, organization of the program materials and media, and research findings basic to social science education will be studied.

**TE 511 ADVANCED PRACTICES AND PRINCIPLES IN TEACHING ELEMENTARY SCHOOL MATHEMATICS (3-0-3)**

Emphasis on creative methods and strategies for teaching elementary school mathematics. Also includes a review of current research, current trends and an exploration of experimentation with unique materials for teaching mathematics.

**TE 512 ADVANCED PRACTICES AND PRINCIPLES IN TEACHING LANGUAGE ARTS AND LINGUISTICS (3-3)**

Emphasis will be given to the role of language in and language with the study of the language arts, stressing modern approaches to language development, semantics, phonetics, phonics, and orthography.

**TE 513 ADVANCED PRACTICES AND PRINCIPLES IN TEACHING ELEMENTARY SCIENCE (3-0-3)**

Current practices and principles in modern elementary science concepts are developed. Emphasis is placed on the selection and organization of content and experimental activities.

**TE 514 COUNSELING/CONSULTING SKILLS FOR EDUCATORS (3-1-3)**

This course will cover the counseling and consulting skills for educators to work with parents and other professionals. Instruction will focus on developing skills to work with students who experience various social and emotional concerns related to learning. The course will be addressed to include theories and approaches to counseling and consultation, including intervention programs. PREREQ: GRAD or PERM/INST.

**TE 515 ADVANCED THEORY OF INSTRUCTIONAL DESIGN FOR SPECIAL EDUCATORS (3-0-3)**

The course is designed to teach students advanced design components to effectively instruct special education children and adults. The course will include the theoretical and programmatic considerations of instructional design. The course may be useful to regular classroom teachers who wish to gain some knowledge in dealing with special students. PREREQ: TE 451 or PERM/INST.

**TE 516 TEACHING GIFTED AND TALENTED STUDENTS (3-0-3)**

Teachers and other educators with exceptional educational needs of gifted and talented students will develop skills in the techniques of meeting the educational goals of these exceptional individuals. Methods and materials for this approach will be evaluated as to application and presentation.

**TE 517 SEMINAR ON THE SEVERELY HANDICAPPED LEARNER (3-0-3) (S odd years)**

This graduate level course is designed to facilitate student knowledge and skills in relation to teaching the severely handicapped learner. Emphasis is placed on research-based, instructional techniques and current professional issues in the field. PREREQ: TE 423 or PERM/INST.

**TE 518 TECHNIQUES FOR CREATIVE WRITING IN ELEMENTARY SCHOOLS (3-0-3)**

Methods and techniques for encouraging creative writing in the elementary school.

**TE 519 CHILDREN'S LITERATURE, ADVANCED LEVEL (3-0-3)**

Current literature for children, including emphasis upon poetry is presented. Issues in children's book selection are discussed.

**TE 520 EDUCATIONAL MEDIA (3-0-3) (SU)**

This course will acquaint the elementary classroom teacher with the latest media and audiovisual media available for use. Evaluation of the materials in a media center will be studied. Emphasis upon the use of a curriculum resource center in the local school system will be made every other year.

**TE 521 ELEMENTARY PHYSICAL EDUCATION ACTIVITIES (3-0-3) (SU)**

Methods and techniques for classroom and playground activities for physical education, curriculum development will be presented. Emphasis upon corrective physical education procedures will be given. Alternate years.

**TE 522 INDIVIDUALIZATION OF READING INSTRUCTION (3-0-3) (SU)**

Emphasis upon the individualized approach to reading instruction is developed. Techniques of conferencing book selection, skill development and individualized instruction are studied.

**TE 523 THE EMOTIONALLY DISTURBED CHILD IN THE CLASSROOM (3-0-3)**

This course is designed to assist teachers, counselors, and administrators in understanding the educational and psychological needs of the emotionally disturbed child. Emphasis is placed on developing skills in identifying emotional problems and planning the remedial steps needed for correction. PREREQ: PERM/INST.
TE 531 EDUCATION FOR THE CULTURALLY DIFFERENT LEARNER (3-0-3)(S). A study of the development of children and adolescents in different cultures in comparative relationship to existing values. The lifestyle of various minority groups and applications for education will be examined. Major topics include culturally different learner; (1) learning styles, (2) media, (3) process of change. Idaho minority groups will be emphasized.

TE 534 ISSUES & TRENDS IN SPECIAL EDUCATION (3-0-3)(S) (even years). This course will investigate the current issues and trends in the field of special education. It will be organized around six topical areas: (1) identification, 2) assessment, 3) eligibility, 4) service delivery, 5) intervention approaches, and 6) instructional strategies. Discussion will be library research based and will focus on all areas of exceptionality, both elementary and secondary school settings. PREREQ: GRAD or PERM/INST.

TE 541 EDUCATION IN EMERGING NATIONS (3-0-3)(F). The course provides an analysis of the relationship between national goals and the educational systems in the twentieth century. Content and systems will be studied in light of three major factors: (1) religious factors; (2) natural factors such as race, language and environment; (3) secular factors such as Humanism, Socialism and Nationalism.

TE 543 EARLY CHILDHOOD: READINGS (3-0-3)(S). Past and current research in early childhood education will be reviewed and synthesized in a seminar format. Students will determine a specific research area to study in depth.

TE 544 EARLY CHILDHOOD: ADVANCED CHILD DEVELOPMENT (3-0-3)(F). The student will examine in depth the physical, social-emotional, cognitive-language, and creative development of children, birth to age eight.

TE 546 EARLY CHILDHOOD: ENVIRONMENTS AND PROGRAMS (3-0-3)(S). The student will examine critical elements in the development and administration of effective early childhood programs including evaluating children, setting up the environment, developing and implementing curriculum, and teaching methods.

TE 547 EARLY CHILDHOOD: LANGUAGE ACQUISITION AND DEVELOPMENT (3-0-3)(F). The student will examine various theories and stages of language development, and will study approaches to vocabulary development in children of English and non-English speaking backgrounds.

TE 551 FUNDAMENTALS OF EDUCATIONAL RESEARCH (3-0-3)(SU,F). This course will introduce students to the elements of experimental and non-experimental research designs. Instruction in using research resources and interpreting statistics will be given and students will analyze current research related to education. Students will learn how to develop a research proposal and will write a scholarly research paper.

TE 555 SUPERVISION OF INSTRUCTIONAL PERSONNEL (3-0-3)(S). A course designed to improve the supervision skills of elementary/secondary cooperating teachers and other supervisory personnel. Emphasis will be placed on a variety of observation and evaluation strategies designed to improve instruction.

TE 559 PHILOSOPHY OF EDUCATION (3-0-3)(S,SU). Students will analyze and evaluate past and contemporary philosophies and the values derived from them as they apply to education. A formal paper will be required.

TE 561 SCHOOL LAW FOR THE CLASSROOM TEACHER (1-0-1)(SU) This course will provide students with an overview of the educational system in America with particular attention given to funding and sources of authority. Issues of policy making as they affect teachers will be examined.

TE 563 CONFLICTING VALUES INFLUENCING EDUCATION (1-0-1)(SU). Students will explore ideological positions which have affected educational programs and policies. They will be asked to carefully consider their own values and analyze how these positions affect their modes of classroom operation. PREREQ: Graduate status. COREQ: TE 570, 571

TE 564 INSTRUCTIONAL TECHNIQUES-SECONDARY SCHOOLS (1-0-1)(SU) In this course, students will investigate instructional techniques which have sound bases in research and theory and which promote development of thinking skills in students.

TE 565 INTERPRETING EDUCATIONAL RESEARCH (1-0-1)(SU). This course will prepare students to read, understand, and critically analyze educational research in their own fields. It includes basic research terminology, strengths and weaknesses in research design, and interpretation of research results. COREQ: TE 570, 571.

TE 566 LEARNING THEORY AND CLASSROOM INSTRUCTION (1-0-1)(SU). Students will investigate major contemporary learning theories and their implications for instruction and curriculum development.

TE 568 TECHNIQUES OF CLASSROOM MANAGEMENT (1-0-1)(SU). This course will explore approaches to effectively working with students in elementary and secondary classrooms. Skill development and theoretical considerations related to developing healthy and productive learning environments will be emphasized.

TE 569 TESTING AND GRADING (1-0-1)(SU). This course will include an introduction to the theories and fallacies of testing and grading. Problems and methods of construction of tests will be studied with practice in designing better tests and systems of grading. COREQ: TE 570, 571.

TE 570 GRADUATE Core ISSUES IN EDUCATION (3-0-3)(SU). This course is part of the graduate education core. The content of this course varies depending upon the current educational issues, but does always include readings, large group presentations, and small group discussions over philosophical, psychological, and sociological aspects of education.

TE 573 INSTRUCTIONAL TECHNIQUES--ELEMENTARY SCHOOL (1-0-1)(SU). In this course, students will investigate instructional techniques which have sound bases in research and theory and which promote the development of thinking skills in elementary students.

TE 581 CURRICULUM PLANNING AND IMPLEMENTATION (3-0-3)(S). This is a general course for practicing teachers intended to give them a foundation in curriculum theory and practice. They will develop understanding of how curriculum is developed, organized, implemented and evaluated. Current issues and trends in curriculum with some historical perspective, will be explored.

TE 582 ANALYSIS AND IMPROVEMENT OF INSTRUCTION (3-0-3)(S). Techniques will be taught to help teachers assess their own strengths and weaknesses and implement plans for self-improvement. Practice will be provided in using tools of analysis, which may include content analysis, Flander's Interaction Analysis System, student performance, and nonverbal behavior. Students will be required to develop and implement plans for improving the quality of their instruction in their classrooms.

TE 590 PRACTICUM IN SPECIAL EDUCATION (3-0-3)(F). This course is designed to provide classroom experiences that allow for the application of methodology, strategies, teaching skills and research related to needs of exceptional students. Arrangement prior to enrollment must be made with the instructor. PREREQ: GRAD or PERM/INST.

TE 591 PROJECT (0-12-6).

TE 593 THESIS (0-12-6).

Master of Arts in Education - Art Emphasis

1. The Master of Arts in Education, Art Emphasis is designed to meet the needs of Art Educators.

2. The following will be submitted to the Art Department Admissions Committee:
   a. The names and addresses of three art educators or professional persons who are acquainted with the student's academic qualifications to pursue graduate study.
   b. A minimum of twenty (20) slides or portfolio of recent art work.
   c. A statement of the student's professional objectives and philosophy of art education and how these will be furthered by graduate study.

3. Program areas of study are as follows:
   a. Required Courses:
      - Art Appreciation in the Educational Program AR 501 3
      - Special Methods: Curric & Develop in Art Educ AR 551 3
      - Project AR 591 6
      - OR
      - Thesis (or additional hours) AR 593 6
      - Education Core courses 6
      - Studio or Content: Six (6) credits in the student's Studio concentration and emphasis will be determined by the student and his committee.
      - Electives: The remainder of the student's work may be elected in relation to his background, interests, and professional objectives in consultation with his major advisor and committee.

Course Offerings

AR-ART

AR 501 ART APPRECIATION IN THE EDUCATIONAL PROGRAM (3-0-3)(F). Emphasis will be placed on understanding the motivations behind interpretation of ideas and symbols. Also emphasized will be communication of this understanding to the various age groups represented on the secondary school level. PREREQ: Graduate status or PERM/INST.

AR 521 TEACHING THROUGH EXPERIMENTAL ART MEDIA (0-6-2)(SU), (Previously approved for Elementary Master's Degree). Varied and unusual experimental art media to be used in conjunction with individual teaching techniques. Students will have the opportunity to solve procedural problems and adapt art media to teaching experiences. Some outside reading will be required as well as written paper. PREREQ: Graduate standing. Summers only by request.

AR 522 TEACHING THROUGH EXPERIMENTAL ART MEDIA (0-6-3)(SU), Var-
ied and unusual experimental art media to be used in conjunction with individual teaching techniques. Students will have the opportunity to solve procedural problems and adapt art media to the teaching experiences. Some outside reading will be required, as well as written papers. PREREQ: Graduate standing. Summers only by request. Alternate years:

**AR 551 SPECIAL METHODS: CURRICULUM DEVELOPMENT IN ART EDUCATION (3-0-3)(F).** Designed for the secondary school art teacher, this course will be geared to creative curriculum planning. It will be held in a workshop seminar format to facilitate student interaction and the opportunity to experiment and develop new ideas. PREREQ: Graduate status and PERM/INST.

**AR 580-589 SERIES SELECTED TOPICS (3-0-3).** An opportunity for the student to work independently with a particular teacher in a specific area or media. A total of nine credits allowable which can be divided into several areas or concentrated, distribution determined by the graduate student and committee. PREREQ: Graduate standing.

**GO 403G ENGINEERING GEOLOGY (2-3-3)(F) (Field trip required).**

**GO 412G HYDROGEOLOGY (3-0-3)(F) (Field trip required).**

**GO 460g VOLCANOLOGY (2-0-2)(F/Field trip) (odd years).**

**GO 471G REGIONAL FIELD STUDY (1, 2, or 3 CR) (F/S/SS/).**

### Graduate

**GO 511 ENVIRONMENTAL GEOLOGY (3-0-3)(F).** Land-use planning, techniques for investigation of surficial materials and water resources. Geologic hazards, surficial deposits and their engineering and hydrologic properties, ground and surface water, waste disposal. Term paper required, field trips required. This course may be taken for undergraduate credit by filling out necessary forms. PREREQ: GO 221, or PH 220.

**GO 521 ADVANCED TOPICS IN EARTH SCIENCE (3-0-3)(SU).** The study, review, and discussion of basic literature, demonstrations, teaching aids relative to geology, astronomy, meteorology and oceanography. The course provides knowledge, skills and material resources that can increase the students capabilities to teach earth science in elementary and secondary schools. PREREQ: Graduate status or PERM/INST.

**GO 531 REGIONAL GEOLOGY OF NORTH AMERICAN (3-0-3)(S).** A systematic study of the geologic provinces of North America with special emphasis on geological relationships and tectonic evolution. Each province is investigated in terms of its structural and geologic history and mineral resources. PREREQ: Graduate status or PERM/INST.

**GS 501 HISTORY OF SCIENCE (3-0-3)(F/S).** This is a survey of humanity's efforts to understand the natural world. "Ancient Science" is presented as an introduction to the evolution of science since the 16th century. "Modern Science" is presented with emphasis on the development of modern scientific thought. Historical illustrations of the nature of modern research in the evolution of science are presented. This course may be taken for either HY or GS credit, but not for both.

### Master of Science in Education - Earth Science Emphasis

The curriculum for the Master of Science in Education, Earth Science emphasis, stresses current developments in the earth sciences disciplines. The planning, preparation, and conducting of laboratory investigations and outdoor field trip activities are emphasized. Because of the great variety of background of present secondary earth science teachers, the course offerings are designed to allow maximum flexibility in planning individual programs. A preliminary examination, oral or written, will be administered to each candidate.

Required courses include the Graduate Core, and a thesis, project, or additional courses as determined by the committee. All other courses to be taken in the degree program are planned by the student and his graduate committee. A final comprehensive oral and/or written examination over course work and the thesis or project is required.

**Course Offerings**

**GO - GEOLOGY**

**Undergraduate**

See appropriate department listing for detailed course descriptions of these undergraduate courses which may be taken for graduate credit.

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**Master of Arts in Education - English Emphasis**

Applicants who have at least twelve semester credit hours of upper division work in English with a grade point of 3.0 in those courses and who meet general Graduate College and College of Education requirements may be admitted as graduate students. Students who do not have the required upper division English work will be
admitted on a provisional basis and will be advised on what steps to take to qualify for regular status.

Program Requirements

The course of study for the Master of Education with an English emphasis will consist of a minimum of 33 hours to be chosen by the students and their advisory committee from one of the following two courses.

1. An introductory seminar, twelve hours of graduate English courses, a thesis or project six hours from the Education core, and nine hours of general graduate electives. At least nine hours of the English courses must be at the 500 level.
   - E300: 6 hours
   - E539 or E595: 3-6
   - Graduate English electives (except E501): 12
   - Graduate Core (may include E501): 6
   - General Graduate electives (may include E501): 9
   TOTAL: 33

2. An introductory seminar, fifteen hours of graduate English courses, six hours from the Education core, nine hours of general graduate electives and a written and oral examination on graduate English coursework. At least twelve hours of the English courses must be at the 500 level.
   - E500: 3
   - Graduate English electives (except E501): 15
   - Graduate Core: 6
   - General graduate electives (may include E501): 9
   - Examination on English coursework: 3
   TOTAL: 33

The introductory Seminar (E 500) is prerequisite to other 500 level seminars. However, with the consent of the student's committee, the student may concurrently take another seminar. With the exception of E 501 and E 597, all seminars will be in specified areas of American and British literature and linguistics. Attention may be given to the influence of other literatures. A maximum of 6 hours in 400 level English courses may be substituted for seminar work in the English core. E501 may be taken as a general elective, but may not be counted toward a student's English core.

Since the content of courses E 501, 520, 530, 540, 550, 560, 570 and 597 may vary from year to year, a student may repeat any of these courses for credit but may not count more than 6 hours toward his English core.

Course Offerings

E ENGLISH

Undergraduate
See appropriate department listing for detailed course descriptions of these undergraduate courses which may be taken for graduate credit.

E 487C MODERN BRITISH AND AMERICAN POETRY (3-0-3)(F/S).
E 488G METHODS AND THEORIES OF LITERARY CRITICISM (3-0-3)(S).

Graduate

E 500 INTRODUCTORY SEMINAR (3-0-3)(F/S). An introduction to bibliography and orientation to sources of information. Students research a concept or problem in literature or writing under supervision. PREREQ: Admission to graduate program or PERM/CHMN.

E 501 THE TEACHING OF WRITING (3-0-3)(F/S). Theories and methods of teaching writing for experienced teachers. Special emphasis on new discoveries about the learning process in writing courses and in the teacher's role in helping individual students. PREREQ: E 301, E 500, and teaching experience or PERM/CHMN.

E 505 LINGUISTICS (3-0-3)(F/S). Modern linguistic theories and their application to literature and teaching English. An examination of how various grammatical models represent the complexities of language sound, sequence, and structure. Application of theory to language at work. PREREQ: E 500 and L 305 or equivalent or PERM/CHMN.

E 510 MAJOR AUTHOR (3-0-3)(F/S). A consideration of minor and major artistic creations of an author with attention devoted to major influences on the writer and his influences on others. In-depth aspects of investigation to include the life of the author and his relation to his work, the society and culture of the times, his place and stature in the genres in which he worked, the use or disregard of tradition, as well as an investigation of contemporary criticism and critical evaluation since his time. PREREQ: E 500 or PERM/CHMN.

E 520 GENRE (3-0-3)(F/S). A study of a well-defined literary category, such as novel, short story, epic or tragedy. Examination of representative texts in order to discover the evolution of a specific literary genre while at the same time establishing its typical features. PREREQ: E 500 or PERM/CHMN.

E 530 PERIOD (3-0-3)(F/S). A study of a selected chronological period of American or British literature with focus on major author's genres, or topic. PREREQ: E 500 or PERM/CHMN.

E 540 MYTH IN LITERATURE (3-0-3)(F/S). An exploration of the use of myth in literature as a source of content and structure. The nature and working of myth and the way it enters conscious creation of art. Themes such as the quest, the initiation, the Adamic myth in American literature of myths in the works of major authors may be explored. PREREQ: E 500 or PERM/CHMN.

E 550 LITERATURE AND CULTURE (3-0-3)(F/S). The interaction between a body of literature and the social and economic and political forces that characterize the culture in which it originates. The influence of culture on literary form and content. PREREQ: E 500 or PERM/CHMN.

E 560 FOLKLORE (3-0-3)(F/S). Materials selected from oral tradition and culture with attention to aspects of collecting, classifying, comparing analyzing and archiving. Theories of folklore composition transmission, and function will be related to the occurrence of folklore. PREREQ: E 500 or PERM/CHMN.

E 570 LITERARY MOVEMENTS (3-0-3)(F/S). A focus on a significant literary movement, the works of its major and minor contributors, its theories and its practice, its relation to its time, its place in literary history, its influence in writers past and present. PREREQ: E 500 or PERM/CHMN.

E 580 LITERATURE FOR USE IN JUNIOR AND SENIOR HIGH SCHOOLS (3-0-3)(F/S). A literary content course for prospective teachers of secondary school English. Primary emphasis on critical reading of literature for adolescents in secondary school. Secondary emphasis on methods of analysis appropriate to students. All genres as well as classic and popular authors. PREREQ: E 102. Two literature courses or PERM/CHMN.

E 593 THESIS (V-0-V). A scholarly paper containing the results of original research. PREREQ: Admission to candidacy and approval of the student's graduate committee.

E 595 READING AND CONFERENCE (V-0-V). A project may include, but is not limited to, a library research paper or experimental research on some aspect of pedagogy or preparation of written curriculum with teaching materials. PREREQ: Admission to candidacy and approval of the student's graduate committee.

Master of Science in Education - Mathematics Emphasis

1. The Master of Science in Education with a Mathematics emphasis may be obtained through any of the following three options.
   a. The 30-hour "examination option"
      - Graduate Core: 6
      - Mathematics Sequence and Seminar: 9
      - One mathematics course exclusive of M 503, 504, or 361: 3
      - Mathematics electives: 6
      - Free electives: 6
      - A written examination over mathematics coursework: 3
      TOTAL: 30
      An oral examination over all coursework included in the student's program
   b. The 33-hour "project option"
      - Graduate Core: 6
      - Mathematics Sequence, Math Seminar and M 591: 12
      - Mathematics electives: 6
      - Free Electives: 6
      - A written examination over mathematics coursework: 9
      TOTAL: 33
      The 33-hour "thesis option" is the same as the "project option" except that M 591 is replaced with M 593

2. Mathematics Requirements
   a. Required Courses
      - M 501, 502 Real Analysis I, II or M 541
      - M 542 Modern Algebra
      - M 570 Seminar in Mathematics
   b. Elective courses - Additional courses planned by the students and their graduate committee to meet program requirements.

3. Additional Information
   a. Credit in Workshop (594 or 599) is limited to a total of 3 credits to be applied to partial fulfillment of the requirements for the emphasis in Mathematics.
   b. Some students may be required to remove deficiencies before admission to candidacy. Students with strong undergraduate mathematics may apply to challenge, waive, or replace parts of the emphasis requirements.
c. Students considering this program should consult with the Chairman of the Mathematics Department. Enrollment in graduate courses has been such that completion dates for this program cannot be guaranteed.

Course Offerings

M MATHEMATICS

Undergraduate

See appropriate department listing for detailed course descriptions of these undergraduate courses which may be taken for graduate credit.

M 406G THEORY OF FUNCTIONS OF A COMPLEX VARIABLE (3-0-3)(F).
M 456G LINEAR PROGRAMMING (4-0-4)(S).

Graduate

M 583 THE TEACHING OF ALGEBRA (3-0-3). Contemporary approaches to teaching secondary school algebra; treatment of selected topics in modern algebra; methods and materials; research relevant to the teaching of algebra. PREREQ: M 302
M 584 THE TEACHING OF GEOMETRY (3-0-3). Contemporary approaches to teaching secondary school geometry; treatment of selected topics in geometry; methods and materials; research relevant to the teaching of geometry. PREREQ: M 311.
M 585 FOUNDATIONS OF MATHEMATICS (3-0-3). The axiomatic method and its role in modern mathematics. The role of the theories of sets and groups in the development of mathematics. Modern philosophies of mathematics. PREREQ: M 302 or PERM/INST.
M 511 GENERAL TOPOLOGY (3-0-3). Set separation axioms, topologies, connectedness, compactness, generalized convergence, continuity, product spaces. PREREQ: M 401 or M 501 or PERM/INST.
M 541G-542G ABSTRACT ALGEBRA I, II (3-0-3). Mappings, the integers, groups, sub-groups, morphisms, rings, integral domains, polynomial rings, fields, field extensions. PREREQ: M 302 or PERM/INST.
M 547 HISTORY OF MATHEMATICS (3-0-3). The course is designed for mathematicians teachers in the secondary schools. The course consists of two parts: the first part traces the development of algebra, geometry, analytic geometry and calculus to the 19th century; the second part gives a brief introduction to, and history of, some of the developments in mathematics during the last century. PREREQ: PERM/INST.
M 561 MATHEMATICS FOR OPERATIONS RESEARCH (4-0-4)(F/S). The mathematics techniques used to solve problems involving several variables. Linear systems, matrices, linear programming with the simplex method, differential and integral calculus with emphasis on applications in management decision situations. PREREQ: PERM/INST.
M 564 MATHEMATICAL MODELING (3-0-3)(SU). Introduction to mathematical modeling through case studies. Deterministic and probabilistic models; optimization. Examples will be drawn from the physical, biological, and social sciences. A modeling project will be required. PREREQ: M 361 and CS 122 or PERM/INST.
M 571 MATHEMATICS CURRICULUM 7-12 (3-0-3). The history of the 7-12 mathematics curriculum: content, special problems, and trends in mathematics programs; organization of the curriculum. Study of reports and recommendations; curriculum development projects. PREREQ: At least one year’s experience teaching in secondary school mathematics.
M 591 PROJECT (May be taken for 3 to 6 credits). A project may include, but is not limited to, a library research paper, educational research or written curriculum with teaching materials. The student must be admitted to candidacy.
M 593 THESIS (May be taken for 3 to 6 credits). Original mathematical research or a new interpretation or novel exposition of existing mathematics. Course is arranged with supervising faculty member. PREREQ: Admission to candidacy.
M 598 SEMINAR IN MATHEMATICS (3-0-3). The content will vary within a format of student presentation and discussion of relatively advanced mathematical topics selected from texts or mathematical journals. This will not be a seminar in mathematics education.

Master of Arts in Education - Music Emphasis

1. The Master’s Degree in Education, Music Education emphasis, is designed to meet the needs of the practicing junior high or high school music specialist. Admission will be granted to applicants who hold a Bachelor’s degree from an accredited college or university, and who give promise of meeting the standards set by the Music Department.

2. All regular and provisional graduate students will be required to take diagnostic examinations during the first part of their first semester in attendance. The purpose of these examinations is to determine the student’s strengths and weaknesses so that the student and her/his committee will be able to set up a program according to the student’s needs. The examinations will be in the areas of music theory, music history, and performance. After taking the core courses in music education, the student will take a comprehensive examination in the area of music education. The results of these examinations will be interpreted by the Music Department faculty. The student’s advisor will consult with the student about action towards remedying any deficiencies. Any undergraduate course used to make up the deficiencies will not count toward the Master’s Degree. A student who has any deficiencies will be granted Provisional Status only in the graduate program; when all deficiencies are removed he may then seek Regular Status. A description of the material covered on these examinations is available from the Music Department.

1. Required Courses Graduate Core

   MU 503 Intro to Research Materials in Music Education
   MU 570 New Developments in Music Education
   MU 592 Thesis or MU 591 Culminating Project

   OR

   Additional Course Work

   Culminating Project may be selected from but not limited to any of the following:
   a. Library research paper which fits the educational needs of the student.
   b. Curriculum proposal in written form which could be considered for implementation in the schools.
   c. Lecture/Recital with a written paper discussing aspects of music which is performed, stylistic considerations, etc.
   d. Written examination of 5 questions chosen by the student’s committee chair from a list of 20 submitted by the student.

2. Elective Courses

   A minimum of 10 elective credits must be taken in the areas of performance, conducting, theory and analysis, and/or history and literature. These courses include all MC 500 (applied music) courses, ME 510, ME 515, ME 520, MU 501, MU 506, MU 511, and MU 561. Additional courses will be planned by the student and his graduate committee.

TOTAL 30-33

Course Offerings

MC MUSIC PRIVATE LESSONS PERFORMANCE STUDIES

Graduate

Students will be assigned on the basis of an audition. Performance, Technical Study, Musical Interpretation, Literature, and Teaching Technique will be stressed.

All 500 level MC courses are repeatable for credit to a maximum of 6 credits. See undergraduate Private Lesson Performance Studies course numbering system for explanation of course numbers.

MC 501 (0-5-1), 502(0-5-2) Woodwind instruments private lessons.
MC 511 (0-5-1), 512(0-5-2) Brass instruments private lessons.
MC 521 (0-5-1), 522(0-5-2) Percussion instruments private lessons.
MC 531 (0-5-1), 532 (0-5-2) Voice private lessons.
MC 541 (0-5-1), 541 (0-5-2) Keyboard instruments private lessons.
MC 551 (0-5-1), 552(0-5-2) Fretted string instruments private lessons.
MC 561 (0-5-1), 562 (0-5-2) Bowed string instruments private lessons.

ME MUSIC ENSEMBLE

Graduate

ME 510 CHORAL ENSEMBLE (0-2-1)(F/S). A general chorus open to all interested students. The format of the classes will be related to the size of the enrollment, i.e., choir, chamber ensemble or collegium musicum.
ME 515 OPERA THEATER (0-5-1). Advanced study/experience in singing-acting technique and movement through performing in productions from the opera and the musical theater repertoire. May be repeated for up to 4 credits.
PREREQ: MUS/PERM/INST.
ME 520 INSTRUMENTAL ENSEMBLE (0-3-1)(F/S). A performing group or...
groups will be formed, depending on the size of enrollment, such as trios, quartets, band or orchestra. Opportunities to perform ensemble music of various kinds will be given. Emphasis will be placed on techniques of ensemble playing, intonation, phrasing, articulation and proper performance practice of ensemble literature.

MU MUSIC, GENERAL

Undergraduate

See appropriate department listing for detailed course descriptions of these undergraduate courses which may be taken for graduate credit.

MU 424g SIXTEENTH CENTURY COUNTERPOINT (3-0-3)(F).
MU 424g COUNTERPOINT SINCE 1600 (3-0-3)(F).

Graduate

MU 581 HISTORY OF MUSIC IN THE UNITED STATES (3-0-3)(F/S). Designed for the non-specialist or specialist in music, this course will survey the role which music has played in the development of American culture. Among the topics covered will be early New England music, music of the Blacks, Indians, and other ethnic groups. Social and historical interrelationships with music will be examined and discussed.

MU 503 INTRODUCTION TO RESEARCH MATERIALS IN MUSIC EDUCATION (3-0-3)(F/S). Designed for the secondary school music specialist, this course will provide an introduction to the basic research literature in music education, interpretation of research findings, basic research teaching, problems in music educational research, and a review of literature pertinent to students' area of interest. Emphasis will be placed on the importance of research in music education. A seminar in research methods will be included.

MU 505 SEMINAR IN CHORAL MUSIC: PERFORMANCE PRACTICES AND STYLES (3-0-3)(F). An historical, generic survey of the repertoire in choral literature. Emphasis will be placed on faces of interpretation through a study of representative compositions from the standpoint of performance practice techniques, and the reading of primary sources of pertinent information.

MU 506 SEMINAR IN INSTRUMENTAL MUSIC: PERFORMANCE PRACTICES AND STYLES (3-0-3)(F/S). Analysis and study of works from the Baroque period through the present era. Particular attention will be paid to performance practices of ornamentation, style, tempo, scoring, dynamics, etc. Band transcriptions also included.

MU 511 20TH CENTURY MUSICAL STUDIES (3-0-3)(F/S). A study of 20th century compositional techniques and performance practices through analysis, discussion of aesthetics, listening, performance, and creative writing. Contemporary techniques and their notation, such as atonal harmonies, serialization, improvisation, electronic music, microtones, and multi-media, will be explored and applied to the secondary school music classroom.

MU 561 ADVANCED CONDUCTING (3-0-3)(F/S). Designed for secondary music teachers, this course is designed to develop and analyze conducting problems, both instrumental and choral, in music of the historical eras, which forms a significant part of the secondary school repertoire.

MU 570 NEW DEVELOPMENTS IN MUSIC EDUCATION (3-0-3)(F/S). Designed to acquaint the music specialist with recent ideas in music education, including major trends in curriculum, new methodology, music in integrated courses, and reports of major conferences and symposia.

MU 571 ADVANCED PRACTICES AND PRINCIPLES IN TEACHING MUSIC IN THE ELEMENTARY SCHOOL (3-0-3)(F/S). Designed for the general classroom teacher or music specialist, the course deals with old and new approaches to teaching music in the classroom, teaching materials, current research on problem singers, creative musical activities, and the development of music reading skills.

MU 572 LISTENING AND SINGING EXPERIENCES FOR THE ELEMENTARY SCHOOL (3-0-3)(F/S). Designed for the general classroom teacher or music specialist, the course deals with the study of singing and listening materials relevant to classroom music. K-6. Sequential curriculum plans will be developed for singing and listening experiences.

MU 573 ADVANCED METHODS AND TECHNIQUES FOR THE INSTRUMENTAL INSTRUCTOR (3-0-3)(F/S). A study of causes and solutions for problems occurring in the instrumental rehearsal. Areas to be covered include instrumental methods and techniques, organization and repertoire planning.

MU 574 ADVANCED METHODS AND TECHNIQUES FOR THE CHORAL INSTRUCTOR (3-0-3)(F/S). A study of causes and solutions for problems occurring in the choral rehearsal. Areas to be covered include vocal methods and techniques, organization and repertoire planning.

MU 575 ADMINISTRATION OF SCHOOL MUSIC (3-0-3)(F/S). A seminar in problems of music supervision and administration with special areas such as budget, scheduling, curriculum, personnel and philosophy.

MU 591 CULMINATING PROJECT (0-0-3). Details for the culminating project can be found in requirements for Master's degree in secondary education, music emphasis.

MU 592 THESIS (0-0-6). A scholarly paper embodying results of original research which are used to substantiate a specific view.

Graduate Credits In Chemistry

There are graduate level courses available that may be offered on special request by the department of Chemistry. Descriptions of these courses follow. In addition, there are some undergraduate chemistry courses for which graduate credit may be earned. These are listed below, but complete course descriptions are found with the Department of Chemistry listing.

C CHEMISTRY

Undergraduate

See appropriate department listing for detailed course descriptions of these undergraduate courses which may be taken for graduate credit.

C 401G ADVANCED INORGANIC CHEMISTRY (3-0-3)(F).
C 411G INSTRUMENTAL ANALYSIS (2-4-4)(S).
C 431G INTRODUCTION TO BIOCHEMISTRY (3-0-3)(F).
C 432G BIOCHEMISTRY LABORATORY (0-3-1)(S).
C 433G BIOCHEMISTRY (3-0-3)(S).

Graduate

C 501 HISTORY OF CHEMISTRY (3-0-3).

The study of the development of chemistry from its early stages through the present era. Emphasis will be placed on the development of chemical concepts, the growth and improvement of the relationships between chemistry and the general course of history. PREQ: Two years of college chemistry and one year of history or PERM/INST. Offered on demand.

C 503 SPECTROSCOPY (3-0-3). Concepts and practical usage of ultraviolet, infrared, nuclear magnetic, and mass spectrometry. Emphasis will be placed on the use of instruments and interpretation of spectra. Prior knowledge of spectroscopy not required. PREQ: Eight hours of general chemistry and six hours of organic chemistry. Offered on demand.

C 599 CHEMISTRY OF LIFE PROCESSES (3-0-3). The course introduces the student to basic concepts of biochemistry associated with a coverage of current topics ranging from allied health field areas to environmental chemistry. Classroom demonstration material will be correlated with lecture material. PREQ: One year of general chemistry and organic chemistry. Offered on demand.

C 511 ADVANCED ANALYTICAL CHEMISTRY (3-0-3). Stoichiometry involved in separations and instrumental methods of analysis. The course will be flexible in nature to adapt to the varied background of the expected students. PREQ: Quantitative Analytical Chemistry of PERM/INST. Offered on demand.

C 515 NUCLEAR AND RADIOCHEMISTRY (3-0-3). Atomic and nuclear structure, radioactivity, nuclear reactions, radioactive decay laws, interaction of radiation with matter, detection chemistry. Offered on demand.

Graduate Programs, College of Arts and Sciences

Master of Science, Geology

A Cooperative Graduate Studies Program

Boise State University and Idaho State University have a cooperative agreement which allows Boise area residents to enroll in the Idaho State University Master of Science program in Geology. Students enrolled in Idaho State University Boise State University graduate classes may complete all but 12 of the necessary credit hours while in residence at BSU. Additionally, students may initiate and complete a thesis in residence at BSU; the thesis committee will consist of faculty members from both universities. A minimum of 12 credit hours (one semester) are to be completed in residence at BSU, and the degree will be awarded by Idaho State University.

Admission Requirements: Application for admission may be made by graduates of accredited institutions, holding a baccalaureate degree in Geology or related geoscience. Regular admission will be awarded to applicants who have earned a minimum grade point average of 2.75 during the last two years of academic work. Continued enrollment in the program requires a minimum 3.0 grade point average and satisfactory progress toward the degree.

Additional information may be obtained from Dr. Claude Spinosa, Chairman, Department of Geology and Geophysics, Boise State University, or from Dr. Paul K. Link, Chairman, Department of Geology, Idaho State University.
### Course Offerings
The following Boise State University courses may be included.

Course descriptions for undergraduate courses are included in the listing for the Department of Geology and Geophysics earlier in this Catalog. Course descriptions for graduate courses are listed under the Master of Science in Education, Earth Science Emphasis, program description.

- GO 403G Engineering Geology
- GO 412G Hydrology
- GO 406G Volcanology
- GO 471G Regional Field Geology
- GO 511 Environmental Geology
- GO 531 Regional Geology of North America
- GO 551 Current Topics in Geology
- GO 571 Geochemistry
- GO 593 Thesis
- GO 596 Directed Research
- GO 598 Graduate Seminar

Idaho State University Courses:
- Geol 648 Research Problems
- Geol 650 Thesis

### Graduate Programs, School of Social Sciences and Public Affairs

#### Master of Arts in History

**Objective**
The Master of Arts in History at Boise State University is designed to provide the candidates with advanced study in the area of history.

**Admissions**
Application for admission to the graduate program in History may be made at any time. It is recommended, however, that at least two months before the first enrollment, the Graduate Admissions Office will have received the application for admission. $10.00 matriculation fee and official transcripts of all undergraduate and graduate work. The transcripts are to be sent directly to the Boise State University Graduate Admissions office by the Registrar of the college or university which the applicant previously attended.

Admission will be granted to applicants who hold a Bachelor's degree in History from an accredited institution or who have a strong history background in their degree. Those students without a strong history background may be required to remove deficiencies before admission to candidacy.

Applicants for regular status in the program must have maintained a GPA of at least 3.00 for the last two years of undergraduate study, or an overall GPA of 2.75. Provisional status may be granted to an applicant not meeting the listed requirements, if warranted and deemed appropriate.

Students with strong undergraduate history may apply to challenge, waive or replace parts of the emphasis requirements. Students selecting a double emphasis will develop their program in consultation with their committee.

**Program Requirements**
The Master of Arts in History will consist of a minimum of thirty-three hours planned by the student and his/her advisory committee from the following alternatives. For the second degree.

<table>
<thead>
<tr>
<th>Component</th>
<th>Hours</th>
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</thead>
<tbody>
<tr>
<td>1. 33 hours with thesis</td>
<td></td>
</tr>
<tr>
<td>History</td>
<td>18</td>
</tr>
<tr>
<td>Fr &amp; Electives</td>
<td>9</td>
</tr>
<tr>
<td>Thesis (defended orally) HY593</td>
<td>6</td>
</tr>
<tr>
<td>2. 33 hours with project</td>
<td></td>
</tr>
<tr>
<td>History</td>
<td>21</td>
</tr>
</tbody>
</table>

**GPA Requirements**
- For the second degree: an overall GPA of 2.75. Provisional status may be granted to applicants who hold a Bachelor's degree in History from an accredited institution or who have a strong history background in their degree. Those students without a strong history background in their degree may be required to remove deficiencies before admission to candidacy. The applicant previously attended.

**Required Courses**
- HY 500 Historians and Historical Interpretation: 3 credits
- HY 580, 581 or 582 Seminar: 3 credits
- HY 510-511 History of Western Thought: 3 credits
- HY 520 Sources of American Values: 3 credits

A maximum of six hours in 300G, 400G, or 500G History courses may be substituted for seminar work in the History offering. Elective courses are additional courses from History or allied fields as planned by the student and his/her graduate committee to meet program requirements.

### Course Offerings

**HY HISTORY**

<table>
<thead>
<tr>
<th>Undergraduate Courses</th>
<th>3 credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>HY 334G UNITED STATES SOCIAL AND CULTURAL HISTORY</td>
<td>3-8-3(F/S)</td>
</tr>
<tr>
<td>HY 423G EUROPEAN DIPLOMATIC HISTORY 1871-1971</td>
<td>3-8-3(F/S)</td>
</tr>
</tbody>
</table>

**Graduate Courses**
- HY 500 HISTORIANS AND HISTORICAL INTERPRETATION (3-0-3): A study of major historians and schools of historical interpretation from Ancient Greece to the twentieth century. Discussion concentrates in written history and the problems of interpretation. Oral and written participation and a major paper are required. PREREQ: Admission to graduate program or PERM/CHMN.
- HY 580 HISTORY OF SCIENCE (3-0-3): A survey of man's efforts to understand the natural world from the ancient world to the present including pre-scientific assumptions, the evolution of science since the 16th century, and the development of modern scientific thought. May be taken for either HY or GS credit, but not both.
- HY 510 HISTORY OF WESTERN THOUGHT (3-0-3): History of Western thought beginning with the Ancient Near East to the Renaissance and Reformation. A study of intellectual and cultural trends reflected in Western religious and philosophical literature. PREREQ: Admission to the graduate program of PERM/CHMN.
- HY 511 HISTORY OF WESTERN THOUGHT (3-0-3): History of Western thought from 1500 to the present. A study of intellectual and cultural trends reflected in Western religious and philosophical literature. PREREQ: Admission to the graduate program of PERM/CHMN.
- HY 520 SOURCES OF AMERICAN VALUES (3-0-3): The origins of American thought and culture, the Puritan mind, enlightenment ideas, the intellectual climate of the new nation, and as exploration of American values on the eve of the Civil War; Laissez-faire capitalism thereafter and the reaction to industrialism. PREREQ: Admission to graduate program or PERM/CHMN.
- HY 580 GRADUATE SEMINAR IN U.S. HISTORY (3-0-3): A study of the principal themes or problems with well-defined periods of particular fields of U.S. History. Emphasis will be placed in reading, discussion, writing and research. Reports and discussion on various aspects of the controlling subject will be performed by the students with the assistance of the instructor. PREREQ: Admission to the graduate program or PERM/CHMN.
- HY 581 GRADUATE SEMINAR IN EUROPEAN HISTORY (3-0-3): Critical analysis of source materials and historical literature on a topic of restricted scope in European history. PREREQ: Admission to graduate program or PERM/CHMN.
- HY 582 GRADUATE SEMINAR IN THIRD WORLD HISTORY (3-0-3): Critical analysis of source materials and historical literature on a topic of restricted scope in Third World history. Primary emphasis will be placed on reading, discussion, writing and research. Reports and discussion on various aspects of the controlling subject will be performed by the students with the assistance of the instructor. PREREQ: Admission to graduate program or PERM/CHMN.
- HY 591 PROJECT (3 credits)
- HY 592 HISTORY COLLOQUIUM (3 credits)
- HY 593 RESEARCH AND THESIS (6 credits)
- HY 598 HISTORY SEMINAR (3 credits)
Graduate Programs, School of Social Sciences and Public Affairs

Master of Public Administration

The Master Degree in Public Administration is an inter-university cooperative graduate program offered jointly by Boise State University, Idaho State University and the University of Idaho. The purpose of the program is to provide present and prospective public administrators with the basic intellectual preparation necessary to understand how to adjust to a changing and challenging environment through an introduction to the theories and practices of administration, management, and Social Science research as these relate to effective performance in public organizations. The MPA program is coordinated through an Inter-University Committee comprised of the chairmen of the Departments of Political Science at cooperating universities, a representative of the Office of the State Board of Education, and a representative of cooperative governmental agencies. The essential features of this inter-university cooperative program are: (1) general coordination and policy control by the Inter-University Committee; (2) unrestricted transferability of credits earned at any of the participating universities; (3) coordination among universities in scheduling and offering courses in the MPA program; and (4) the establishment of a basic core of courses at all three cooperating institutions plus optional areas of emphasis which may vary among the universities and which reflect the particular areas of specialization available at the respective universities.

The inter-university MPA program has been designed in accordance with the "Guidelines and Standards for Professional Master's Degree Programs in Public Affairs and Public Administration" prescribed through the National Association of Schools of Public Affairs and Administration (NASPAA).

Admission to the MPA Program

Students may enroll in the MPA program by applying to one of the participating universities. Acceptance by any of the three universities admits a student into the MPA program. A matriculated student should complete graduate studies at the institution which offers the area of specialization which he or she wishes to emphasize. The specific program which each student will pursue will be established by an advisory committee consisting of three faculty members, one of whom will be from a university other than that of the chairman of the student's advisory committee. No specific undergraduate program is required in preparation for the MPA program. It is anticipated that students' will come from widely differing academic preparations.

Some coursework in Humanities and Social Science (Political Science, Sociology, Economics and Psychology) is essential to the foundation of the MPA program for all students; also a student must provide evidence of proficiency in skills of statistics, data processing, or accounting, either through undergraduate preparation or previous work experience. Deficiencies in these areas will be made up outside of the required curriculum. A student may be required to remove other deficiencies related to specified areas of emphasis in the MPA program, as determined by the Inter-University Committee.

Specific Admission Requirements for Applicants

All applicants to the MPA program at Boise State University must meet the following requirements prior to enrollment in MPA courses:

1. Possession of a baccalaureate degree from an accredited institution.
2. Demonstration of satisfactory academic competency by attaining an overall GPA of 2.75 and recommendation for admission by the Department of Political Science. Students with a lower GPA may be admitted on provisional status on recommendation of the Department of Political Science with approval of the Graduate College. Final determination of the retention in the MPA program of a student with Provisional Status will be made after the completion of 12 credits of approved study, with the general requirements of a grade of B or better in the coursework taken.
3. Receipt of 3 letters of personal evaluation from individuals qualified to evaluate the applicant's academic potential. Evaluators may include current or former employers, as well as professors. The letters are to be addressed as follows: Chairman, Department of Political Science, Boise State University, Boise, Idaho 83725.
4. Submission of a brief statement by the applicant indicating career objectives and the area of emphasis to be undertaken in the MPA program.
5. Completion of the following prerequisite courses in undergraduate preparation or their equivalent (applicable to all students applying for admission to the MPA program):

   - American National Government PO 101
   - State, Local Government PO 102
   - Introduction to Public Administration PO 303
   - At least three credits in each of the following areas:
     - Sociology
     - Economics
     - Psychology
   - At least three credits in one of the following areas:
     - Accounting
     - Data Processing
     - Social Statistics

For those students selecting Human Services Administration as their area of emphasis for specialized preparation in Public Administration, at least 9 credits in Criminal Justice.

Students who are deficient in any of the prerequisites indicated above must remove these deficiencies prior to enrollment in MPA graduate level courses for credit.

The student may be required to remove other deficiencies as determined by the Inter-University Committee established for administrative coordination of the MPA program.

An applicant planning to achieve an MPA degree at Boise State University must be accepted by the Graduate College of Boise State University. (The student is advised to consult the appropriate section of the Catalog for any special requirement or conditions prescribed by the Graduate College.)

The Graduate Degree Program

The MPA degree may be achieved through the successful completion of at least 30 semester credit hours of approved coursework plus 6 credits of public service internship. Eighteen credit hours must be completed in courses selected from the "core areas" with 12 additional credit hours completed in designated optional areas of emphasis. Students may follow a thesis or non-thesis option in pursuing the MPA. The thesis counts as 6 credits toward completion of the degree in lieu of coursework selected from the student's area of emphasis. All MPA candidates must complete a final examination. Those following the thesis option will complete an oral examination covering the thesis and program coursework. The non-thesis option requires a written and oral examination over program coursework.

The academic program of each student must be approved by the MPA advisory committee and must satisfy the general requirement of an integrated program designed to meet career objectives of the student in Public Administration.

Core and Optional Area Requirements: The specific course requirements of the MPA program are set forth in a list of courses which have been approved by the Inter-University Committee. This list is available through each of the cooperating universities. Courses are available at each institution in the "core areas." The optional "areas of emphasis" and expansion of available courses as additional resources become available and the cooperative relationships among the three universities are further developed. The listing of areas of emphasis represents a collective enumeration of all available areas which are currently available or are planned for future development at all of the cooperating universities. (A description of these areas of emphasis which are presently operational at each institution and admission forms to the MPA program are available through the Chairman of the Department of Political Science at Boise State University.)
State University, the Chairman of the Department of Political Science at Idaho State University, or the Chairman of the Department of Political Science at the University of Idaho.)

Core Area Requirements: At least 18 semester credit hours of coursework required on the designated core areas are to be selected in accordance with the following bases of selection:
1. At least one course selected from each of the following core areas:
   a. Administrative Theory, Organization and Behavior
   b. Public Management Techniques
   c. Public Policy and Policy Analysis
2. At least one course from each of two of the following “core areas”:
   a. Administrative Law
   b. The Executive and the Administrative Process
   c. Intergovernmental Relations
   d. Community and Regional Planning
   e. Comparative Public Administration and Planning Systems
3. A sixth course is to be selected also from any one of the 8 “core areas” listed under items 1 and 2 above.

Optional Areas of Emphasis: At least 12 semester credit hours of coursework are to be taken in any one of the following areas of emphasis:
1. General Public Administration
2. Community, State & Regional Planning
3. Criminal Justice Administration
4. Public Health Administration
5. Public Finance, Budgeting & Administrative Management
6. Environmental & Natural Resources Administration
7. Local Government Administration
8. Human Services Administration

Public Service Internship: Those students with no work experience in government are to be assigned as public service interns. The internship is to be served in a government office at local, state, or federal levels, or in appropriate organizations which are concerned with governmental affairs, such as private foundations and community institutions. Credit provided for the internship shall be in addition to the 30 semester credit hours of coursework required in the MPA program. The internship component will comprise 6 semester hours.

Course Selection

Designated Core Area

NOTE: Selection of courses is to be made in consultation with the student’s major professor in the preparation of a MPA program development plan for each individual student.

a. Administrative Theory, Organization, and Behavior: Organization Theory & Bureaucratic Structure PO 487G.


d. Administrative Law: Administrative Law PO 467G.

e. The Executive & the Administrative Process: The Role of the Executive in Policy Making PO 530.

f. Intergovernmental Relations: Intergovernmental Relations PO 469G.

g. Community & Regional Planning: No course offering yet provided at BSU.

h. Comparative Public Administration & Planning Systems: Comparative Public Administration PO 465G.

Optional “Areas of Emphasis”

NOTE: Some of the courses provided in designated areas of emphasis are also provided in designated core areas as shown above. In such cases, a course may satisfy a general core area requirement or a specific area of emphasis requirement in the MPA program but not both.

a. General Public Administration: This area of emphasis is provided to accommodate those students desiring preparation in public administration as a “generalist” rather than a “specialist” in a particular area of specialization. At BSU the student may select the remaining 12 credit hours of coursework from the courses listed below:

b. Community, State and Regional Planning: (No course offering yet provided at BSU in the MPA program.)


d. Public Health Administration: (Planned for future implementation as an area of emphasis at BSU.)

e. Environmental and Natural Resources Administration: (No course offering yet provided at BSU in the MPA program.)

f. Local Government Administration: (Planned for future implementation as an area of emphasis at BSU.)

g. Public Finance, Budgeting, and Administrative Management: (Planned for future implementation as an area of emphasis at BSU.)


Course Offerings

PO POLITICAL SCIENCE COURSES

Undergraduate

PO 465G COMPARATIVE PUBLIC ADMINISTRATION (3-0-3)(F/S).

PO 467G ADMINISTRATIVE LAW (3-0-3)(F/S).

PO 469G INTERGOVERNMENTAL RELATIONS (3-0-3)(F/S).

PO 487G ORGANIZATIONAL THEORY AND BUREAUCRATIC STRUCTURES (3-0-3)(F/S).

Graduate

PO 510 FISCAL PROCESSES AND PUBLIC BUDGETING PROCESS (3-0-3)(F/S).

PO 511 PROGRAM EVALUATION AND QUANTITATIVE ANALYSIS (3-0-3)(F/S).

PO 520 PUBLIC POLICY FORMULATION AND IMPLEMENTATION (3-0-3)(F/S).

PO 538 ROLE OF THE EXECUTIVE IN POLICY MAKING (3-0-3)(F/S).
SELECTED TOPICS (3-0-3). To be offered as staff availability permits:

- PO 580 ADMINISTRATIVE THEORY, ORGANIZATION AND BEHAVIOR
- PO 581 PUBLIC MANAGEMENT TECHNIQUES
- PO 582 PUBLIC POLICY AND POLICY ANALYSIS
- PO 583 ADMINISTRATIVE LAW
- PO 584 EXECUTIVE AND ADMINISTRATIVE PROCESS
- PO 585 INTERGOVERNMENTAL RELATIONS
- PO 586 COMMUNITY AND REGIONAL PLANNING
- PO 587 COMPARATIVE PUBLIC ADMINISTRATION AND PLANNING SYSTEMS

PO 590 PUBLIC SERVICE INTERNSHIP (variable credit). Arranged as field experience for those students with no prior experience in governmental or other organizational assignments. Such internships will be established and arrangements made for placement through the chairman of department of political science.

PO 593 THESIS (3 credits/semester). Selection of approved topic in public administration for major preparation and defense through consultation with major advisor.

PO 595 READING AND CONFERENCE (1-2 credits). Directed reading on selected materials in public administration and discussion of these materials, as arranged and approved through major advisor.

PO 596 DIRECTED RESEARCH (1-3 credits). Special projects undertaken by the MPA student as advanced study in specialized areas according to the needs and interests of an individual student. Course embodies research, discussions of the subject matter and procedures with a designated professor and a documental paper covering the subject of the independent study.

PO 599 CONFERENCE OR WORKSHOP (1 credit). Conferences or workshops covering various topics in public administration may be offered on an irregularly scheduled basis, according to student interest and staff availability. No more than 3 credits provided through conferences or workshops can be applied toward the MPA.

CR CRIMINAL JUSTICE ADMINISTRATION COURSES

Graduate:


CR 511 SPECIAL PROBLEMS OF THE JUVENILE AND YOUTHFUL OFFENDER (3-0-3)(F/S). Examination of current processes in juvenile justice, rehabilitation programs, probation and utilization of community-based resources. Emphasis will be placed on preventive rehabilitative measures at the local level.

CR 580 SELECTED TOPICS - CRIMINAL JUSTICE ADMINISTRATION (3-0-3). Examination, evaluation and research regarding contemporary problems in the criminal justice system. Students will be required to do extensive reading and inquiry into special areas of concern and interest.

CR 595 READING AND CONFERENCE (1-2 credits). Directed reading on selected materials in criminal justice administration and discussion of these materials, as arranged and approved through major advisor.

CR 590 SEMINAR IN CRIMINAL JUSTICE ADMINISTRATION (2-0-2)(F/S). Intensive analysis of selected subject areas of the system of criminal justice administration. PREREQ: CR 301.

SO SOCIOLOGY COURSES

Graduate:

SO 501 THE SOCIOLOGY OF EDUCATION (3-0-3). A sociological analysis of the American school system, its problems and the social forces that shape the schools in contemporary society.

SO 510 CONFLICT AND CHANGE IN SOCIO-CULTURAL SYSTEMS (3-0-3)(F/S). Intensive examination of social and cultural change as related to technological evolution, value changes and the resultant conflict in society.

SO 511 THE SOCIOLOGY OF AGE GROUP STRATIFICATION (3-0-3)(F/S). Examination of the sociological effect of age as a major dimension of social organization and stratification in American society and Western civilization. The course will consider the effects of changing patterns of longevity, resultant changes in the distribution of the population, and the affect of social, economic, and political systems.

SO 512 SOCIAL DEMOGRAPHY (3-0-3)(F/S). Techniques and methods for analyzing population growth, trends, and movement as reflected in actuarial data, birth-death rate, mobility, fertility and fecundity as these affect the societal patterns, especially planning for human service programs.

SO 580 SELECTED TOPICS - HUMAN SERVICES ADMINISTRATION (3 credits).

SO 595 READING AND CONFERENCE (1-2 credits). Directed reading on selected materials in human services administration and discussion of these materials as arranged and approved through major advisor.

Graduate Programs,
College of Arts and Sciences

Master of Science in Raptor Biology

General Information

The Master of Science degree program in Raptor Biology is designed for students, holding or expecting a bachelor degree in one of the disciplines of the biological sciences, to enhance their knowledge and understanding of raptor biology and ecology. The affiliation of the program with the World Center for Birds of Prey, operated by The Peregrine Fund, Inc., affords students a unique opportunity to study the techniques, physiology and ecology of the captive breeding and release of rare and endangered birds of prey. In addition, the Snake River Birds of Prey Natural Area, with the largest concentration of nesting raptors in North America, provides a unique circumstance to study raptor biology and ecology. Since habitat studies are critical to raptor biology, students interested in plant, animal, or microbial ecotopy thesis projects are encouraged to apply to the program.

The raptor biology program, centered in the Biology Department at Boise State University, also involves the cooperation of faculty in the Department of Biological Sciences, Idaho State University, and the College of Forestry, Wildlife, and Range Sciences, University of Idaho. Each graduate student's program is individualized: and, depending upon the thesis topic chosen and with the recommendation of the thesis committee, a student may be required to take select courses at Idaho State University or the University of Idaho. Every effort will be made to smoothly facilitate those requirements. While not required of all M.S. students, some students' programs may benefit greatly by a semester spent at Idaho State University or the University of Idaho. The prospective graduate student should consult the Graduate College section of the Boise State University catalog for general information for graduate students.

Admission Requirements

1. Submit a graduate application along with the $10.00 matriculation fee to the Graduate Admissions Office. Please submit the application PRIOR to submitting any additional items.

2. Have the Registrar(s) of ALL post-secondary institutions attended send official transcripts.

3. Submit three letters of recommendation.

4. Have Graduate Record Exam scores forwarded.

All of the above materials are to be sent directly to the Graduate Admissions Office, Boise State University, 1910 University Drive, Boise, ID 83725.

REGULAR STATUS may be granted to those students who submit the above materials if they have maintained a 2.75 GPA over the last two years of undergraduate study and average a 50 percentile in verbal, quantitative, and verbal portions of the GRE. Current students may apply to the Graduate Program in Raptor Biology at Boise State University.

PROVISIONAL STATUS may be granted to those applicants who do not meet the requirements for regular status or who may required to complete additional requirements as determined by the Biology Department.

Students may apply for admission at any time; however, applications must be completed by November 1 (for Spring Semester Admission) and by April 1 (for Fall Semester Admission) in order to be considered for assistantships. Other forms of financial aid, such as loans or the College Work Study Program, are available to graduate students. Prospective students should contact the Financial Aid Office and consult the BSU catalog.

Degree Requirements

Once accepted, the Biology Graduate Studies Coordinator, in con-
consultation with the student and the student's major professor (thesis advisor), selects two additional faculty to comprise the student's thesis committee. This committee reviews the student's program and thesis. The Biology Department graduate admissions committee determines if there are any specific academic deficiencies that the student must meet in addition to the M.S. degree requirements.

A minimum of thirty (30) credits are required. Two (2) credits of graduate seminar (B 598) and six (6) credits of thesis (B 593) are required as part of the minimum 30 credits. The final copy of the thesis must be approved by the student's thesis committee and submitted to the Dean of the Graduate College at least three (3) weeks before commencement.

**Course List (BSU)**

- Applied and Environmental Microbiology B 415G .................. 4
- Biometry B 501 ......................................... 4
- Population and Community Ecology B 502 ......................... 3
- Raptor Ecology B 506 .................................... 3
- Seminar B 598 (1 credit) .................................. 2
- Thesis B 593 ............................................... 6
- Directed Research B 596 (6 credits max in a semester) ........... 1-9
- Mycology BT 330 ........................................ 3
- Advanced Writing E 401 .................................... 3
- Mathematical Modeling M 564 ................................ 3
- Organizational Theory MG 540 ................................ 3
- Public Policy Formulation & Implementation PO 520 ............. 3
- Entomology Z 305G ........................................ 4
- Ornithology Z 341G ........................................ 3
- General & Comparative Physiology Z 409G ....................... 4
- Mammalogy Z 421G ........................................ 3

In addition, approved upper division and graduate courses at Idaho State University and/or the University of Idaho may serve as part of the graduate program at the determination of the student's thesis committee.

**Thesis/Project**

By the end of the eighth week of the second semester in which the student is enrolled, an outline of the proposed research project must be submitted to the major professor along with a one-page abstract that is distributed to the other two thesis committee members. A budget must be included as part of the research proposal. During the second semester, the student must present a seminar on the proposed research which may consist of a literature review, current research, or progress on the research project.

**Course Offerings**

**Undergraduate**

See appropriate department listing for detailed course descriptions of these undergraduate courses which may be taken for graduate credit.

**B BIOLOGY**

- B 415G APPLIED AND ENVIRONMENTAL MICROBIOLOGY (3-3-4)(S).
- BT BOTANY
- BT 330G MYCOLOGY (3-3-4)(F).
- Z ZOOLOGY
- Z 305G ENTOMOLOGY (2-4-4)(F).
- Z 341G ORNITHOLOGY (2-3-3)(S).
- Z 409G GENERAL AND COMPARATIVE PHYSIOLOGY (3-3-4)(S).
- Z 421G MAMMALOGY (2-3-3)(S).

**Graduate**

- B 501 BIOMETRY (4-0-43)(F). An application of statistical methods to problems in the biological sciences. Basic concepts of hypothesis testing; estimation and confidence intervals; t-tests and chi-square tests. Linear and nonlinear regression theory and analysis of variance. Techniques in multivariate and nonparametric statistics. PREREQ: M 111 or equivalent, or PERM/INST.
- B 502 POPULATION AND COMMUNITY ECOLOGY (3-0-3)(F). The structure of populations and communities. Competition, predation, life history strategies, demography, population regulation, and species diversity are examined from experimental and theoretical perspectives. PREREQ: B 423 or equivalent, or PERM/INST.
- B 506 RAPTOR ECOLOGY (3-0-3)(S). Theoretical ecology as applied to birds of prey. Strategies of reproduction, habitat selection, foraging and spacing; theory of competition and predator-prey interactions; niche theory and community structure; raptor management. PREREQ: B 423 or equivalent, or PERM/INST.
Part 12

School of Vocational Technical Education

Acting Dean: Tom Denison, Ph.D.

- Business/Service Division:
  Bonnie J. Sumter, Division Manager.

  Instructors: Business and Office Occupations: Bounds, Butler, Carlton, Metzgar, Williamson; Child Care: Gourley, Lingenfelter; Culinary Arts: Kuhn, Walsh; Dental Assistant: Imbs, Machlin; Horticulture Service Technician: Moen, Oyler; Marketing: MidManagement: Lane, Scudder; Practical Nursing: Baichtal, Dallas, Heist, McCullough, Towe, Surgical Technology: Curtis.

- Canyon County Division:
  Charles R. Tillman, Division Manager.

  Instructors: Agricultural Equipment Technology: Gaines; Business and Office Occupations: Bounds; Electrical Lineworker: McKie; Professional Truck Driving: Christy; Refrigeration, Heating and Air Conditioning: Tucker; Wastewater Technology: Hodge.

- Technical Division:
  Gary Aramburri, Division Manager.

  Instructors: Business Machine Technology: Jansson, Jones; Drafting Technology: Benton, Burkey, Olson, Watts; Electronics Technology: Carlton, Dodson, Sluder, Stack; Industrial Mechanics: Allen; Machine Shop: Glassen, Wertman; Welding: Baldner.

Department Chairpersons:

- Adult Basic Education Learning Center: Elaine Simmons
- Vocational Student Services: Bobbi K. Nothern
- Vocational Counselors: Coll, Nothern, Quinowski

School of Vocational Technical Education Emeriti:

Buchanan, Callies, Fleshman, Fuehrer, Hager, King, Krigbaum, Lamborn, Leigh, Tennyson, Thompson, Trapp, Weston

Objectives of Vocational Education

To provide the opportunity for state and local citizens to acquire the education necessary:

1. To become employed, to succeed, and to progress in a Vocational Technical field.
2. To meet the present and anticipated needs of the local, state and national economy for employees with a Vocational Technical education.
3. To become contributing members of the social, civic, and industrial community.

Admissions Requirements

Students who plan to enter the School of Vocational Technical Education, Boise State University, must complete the following:

1. High school graduation or a GED is required. All non-high school graduates must be out of high school one complete semester.
2. Boise State University application—(Admissions Office; $10.00 matriculation fee required).
3. Completion of an entrance assessment THE ASSET EXAMINATION which can be taken at any Idaho Post Secondary Vocational Technical School. There is no fee for the Asset Examination.
4. Personal interview with a School of Vocational Technical Education counselor.
5. $75.00 registration advance security deposit to the School of Vocational Technical Education. This is applied to fees upon registration and is refundable only with justifiable cause. The
A limited number of students can be accepted in each program so all admission requirements should be completed early.

When steps 1-4 have been completed and you have been accepted by the Vocational Technical School, you are eligible to pay the $75.00 advance deposit. You are not admitted into a program until steps 1 through 5 are completed.

Pre-Technical Instruction

The School has assistance available for persons interested in entering Vocational Technical programs who need brushup tutorial assistance to meet entrance requirements. There is no charge for this service. Interested persons should contact the Vocational Student Services Office at (208) 385-1444.

Adult Learning Center

Elaine Simmons, Department Head

No Credit Granted

The Adult Learning Center operates an open entry/open exit program with individualized assistance provided by staff and volunteers. The following instruction and services are provided to adults at the Boise location on campus as well as at many outreach sites throughout the 10 counties of Southwest Idaho:

1. Basic skills instruction in reading, math, English, and writing
2. Instruction and materials for GED and American Government testing preparation
3. GED and American Government testing for the High School Equivalency Certificate
4. Literacy instruction for non-readers
5. English as a Second Language instruction
6. Citizenship preparation classes
7. Tutorial assistance for those needing help in meeting entrance requirements for B.S.U. vocational technical programs
8. Job Training Partnership Act opportunities through the Southwest Idaho Private Industry Council
9. Southwest Center for New Directions - assistance to homemakers and single parents through counseling, workshops and support groups
10. Career counseling, assistance in developing employability skills and the Career Information System for program participants
11. Computer literacy instruction for program participants.

All services except GED and American Government testing are provided at no cost to those enrolled at the Adult Learning Center. For information or assistance, please call the Adult Learning Center at (208) 385-3681.

Graduation Requirements

All candidates for a Certificate of Completion, Diploma, or Associate of Applied Science Degree must have a minimum of a 'C' grade in the major (technical) coursework. A 2.0 grade point average is required in all other required coursework.

Curriculum Changes

The curriculum in vocational technical programs must reflect the changes and current practices of Business & Industry. Program and course curricula are changed as needs dictate. An approved process is followed prior to implementation of curriculum changes.

Certificate of Completion

The Certificate of Completion is conferred upon students who successfully complete a vocational technical program which is less than a two year curriculum.

Diploma

A Diploma is conferred upon students that successfully complete a two year program but opt not to complete the academic requirements for the Associate of Applied Science degree.

Associate of Applied Science Degree

Two year programs in the School of Vocational Technical Education lead to an Associate of Applied Science degree. The standard requirements for this degree are as follows:

1. Technical Education Requirements -- 52 credit hours or equivalent clock hours.
   a. Technical Course work: 42-46 credit hours or equivalent clock hours. (Minimum)
   b. Technical Support Course work: 10-14 credit hours or equivalent clock hours.

2. General Education Requirements: 12 credit hours or equivalent clock hours.

3. Graduation Requirements:
   a. All candidates for the Associate of Applied Science degree must have a minimum of a 'C' grade in the major (technical) coursework. A 2.0 grade point average is required in all other required coursework.
   b. Students requesting admittance to the BAS program must make application through the School of Vocational Technical Education. The College of Arts and Sciences requires that all students admitted to the BAS degree program have no grade lower than a 'C' in their major. The AAS degree is the major in a Bachelor of Applied Science degree program.

Bachelor of Applied Science

The School of Vocational Technical Education in conjunction with the College of Arts and Sciences offers a Bachelor of Applied Science Degree with a major in the field of Vocational Technical Education. The Bachelor of Applied Science is designed to build upon the Associate of Applied Science Degree (AAS).

Parameters of eligibility for admission to the Bachelor of Applied Science program shall be understood to include graduates of a technical program that meets the Idaho Standards for the A.A.S. Degree (minimum of 64 credits) and is accredited by a recognized regional and/or national accrediting body. The minimum A.A.S. degree requirements include:

- Technical Education Course work .......... 42 credits
- Technical Support Course work .......... 10 credits
- General Education ..................... 12 credits

TOTAL 64 CREDITS

Exceptions to the above should be brought to the attention of the Dean or Associate Dean of the School of Vocational Technical Education for a determination regarding eligibility. Credit for prior learning will be determined in accordance with prevailing institutional policy.

Recommendations for admission into the Bachelor of Applied Science Degree must be obtained from the School of Vocational Technical Education.
Apprenticeship, Trade Extension and Job Ungrading

Managers: Gary Arambarr, Bonnie Sumter, Charles Tillman.

Through cooperative arrangements with the State Board for Vocational Education, Boise State University School of Vocational Technical Education sponsors a wide range of trade extension programs for beginning, apprentice, and journeyman workers. Such courses are designed to meet the specific needs of industry, labor, agriculture, and government. Classes usually meet in the evening. Flexibility of scheduling, content, place of meeting is maintained in order to meet the growing educational needs of the community. Typically, though not invariably, such courses provide related technical education for those workmen receiving on-the-job instruction in such vocations as sheetmetal, carpentry, plumbing, welding, electricity, electronics, typing, automotives, nursing, and farming.

Information concerning admission requirements, costs, dates, etc., may be obtained from Boise State University School of Vocational Technical Education. Phone: (208) 385-1974.

Programs Offered

Agricultural Equipment Technology - Nine Month Program

Certificate of Completion
Instructor: Marlin Gaines

The Agricultural Equipment Technology Program is designed to prepare students for employment in the repair of equipment used in the production and harvesting of agricultural products. All types of equipment will be covered. Theory and principles of operation will be stressed including a strong emphasis on safety procedures.

Subject       Fall   Spring
AE 101-102 AGRICULTURAL EQUIPMENT LAB (0-25-6) 6 6
AE 151-152 AGRICULTURAL EQUIPMENT THEORY (10-0-10) 10 10
AE 262 OCCUPATIONAL RELATIONS (2-0-2) 2
TOTAL 16 18

Course Offerings

AE AGRICULTURAL EQUIPMENT TECHNOLOGY

AE 101-102 AGRICULTURAL EQUIPMENT LAB (0-25-6). This course provides the application of principles covered in the theory class. Shop experience will be gained by making actual repairs to tractors and other planting, cultivating and harvesting equipment. Basic welding will also be covered.

AE 151-152 AGRICULTURAL EQUIPMENT THEORY (10-0-10). A study of the internal combustion engine, gas and diesel fuel systems, mechanical and hydraulic theory and the application of these principles to the various machines used in farming operations.


Auto Body - Eleven Month Program

Certificate of Completion
Instructor: Charles Parke

The Auto Body Program curriculum is designed to provide the student with the basic skills necessary for employment in the auto body industry. This training provides students with the necessary skills and knowledge for employment in the Auto Body trade and closely related crafts. Training includes Auto Body theory, welding (plastics, braze, mild steel, wirefeed), painting (lacquer, acrylic enamel, urethane, blending, matching), metal working (repair, body shop machining), trim alignment and repair, repair of new cars (Unico Coupe Repair, Unico Coupe Bench Systems). A Certificate of Completion is issued upon satisfactorily completion of all skills in the eleven month program.

Subject       Fall   Spring   Summer
Auto Body Lab AB 121-122-123 10 10 7
Auto Body Theory AB 141-142-143 7 5 5
OCCUPATIONAL RELATIONS AB 262 2 2 2
TOTAL 17 17 12

Course Offerings

AB AUTO BODY

AB 121-122-123 AUTO BODY LABORATORY (0-25-10) (F/S) (SU). The purpose of these courses is to develop the skills needed by an auto body repairman. Subjects covered include: orientation, safety rules, shop housekeeping, welding, painting fundamentals, metal working, body filling, advanced painting processes, frame alignment, glass and panel replacement, bench repair systems.

AB 141-142-143 AUTO BODY THEORY (10-0-7) (F), (8-0-5) (SU). This course correlates with the auto body laboratory course. The theory of auto body repair and related sciences. Mathematics and science necessary for and related to the trade are provided.

AB 262 OCCUPATIONAL RELATIONS (2-0-2). Designed to enable a student to become skilled in dealing effectively with people and for applying, getting, maintaining and advancing in employment. One semester course.

Auto Mechanics - Eleven Month Program

Certificate of Completion
Instructors: Lee Hall, Charles Mikeseel

The program is designed to provide students with classroom and laboratory experiences that will prepare them for employment in new car dealerships or independent garages. The proper use of diagnostic equipment and shop machine tools are emphasized.

Subject       Fall   Spring   Summer
Basic Mechanics AM 101 1
Automotive Service Cooling AM 102 2
Automotive Brakes AM 110 2
Front End & Alignment AM 115 2
Automotive Electrical Systems AM 125 5
Engine Performance AM 130 5
TOTAL 17

Engine Repair AM 135 3
Manual Trans. & Differ. AM 140 4
Introduction to Micro Comp. AM 180 2
OCCUPATIONAL RELATIONS AM 262 1
Basic Welding AM 120 1
Automatic Transmissions AM 175 4
Automotive Heating & Air Cond. AM 190 2
TOTAL 17

Exhaust Systems AM 145 1
Emission Systems AM 150 2
Advanced Engine Performance AM 195 4
NIASE Certification AM 235 2
TOTAL 9

Course Offerings

AM AUTO MECHANICS

AM 108 BASIC AUTOMOTIVE MECHANICS (1-1-1)(F). Basic principles of automotive mechanics including orientation, shop math, hand tool, fastener and equipment identification, shop organization procedures and safety will be covered. This course is required for all auto mechanics students prior to additional coursework.

AM 109 AUTOMOTIVE SERVICE, COOLING (2-2-2)(F). This course introduces the student to the theory and practice of automotive service with special emphasis on servicing the cooling systems of automobiles.

AM 117 AUTOMOTIVE BRAKE SYSTEMS (1-4-2)(F). Theory and practice of automotive brake systems inspection, maintenance and repair will be covered including shoe replacement, drum and rotor machining and rebuilding of wheel, master cylinder, and power brake units.

AM 118 AUTOMOTIVE FRONT END SUSPENSION & ALIGNMENT (1-4-2)(F). This course introduces the student to the theory of automotive suspension systems including suspension, the study and practice of alignment, wear identification, front end rebuilding, and wheel balancing.

AM 119 BASIC WELDING (1-1-1)(SU). Introduction to basic arc welding and oxy-acetylene welding processes. Emphasis is placed on safe operation of welding equipment. Oxy-acetylene torch cutting techniques will also be covered.

AM 125 AUTOMOTIVE ELECTRICAL SYSTEMS (4-4-5)(F). This course covers identification and use of basic automotive electronic test equipment, basic electricity, basic automotive electronic theory, testing and rebuilding of starter, alternator, ignition and lighting systems. The theory of Computer Command Control systems will also be covered.

AM 130 ENGINE PERFORMANCE (4-4-5)(F). The student will be introduced to the design and repair of conventional and electronic ignition systems, fuel
delivery systems, carburetion, fuel injection, computer controlled ignition, and fuel systems. The use of scale and diagnostic equipment will be emphasized.

AM 135 ENGINE REPAIR (3-3-3)(S). This course covers engine design, engine disassembly, parts evaluation, parts repair and replacement, and proper disassembly techniques, parts evaluation and proper assembly.

AM 140 MANUAL TRANSMISSION AND DIFFERENTIAL REPAIR (4-3-4)(S). This course introduces students to transmission and differential design, proper disassembly techniques, parts evaluation and proper assembly.

AM 145 EXHAUST SYSTEMS (1-1-1)(SU). Students will learn evaluation of exhaust systems and replacement or repair of faulty system components. Prerequisite: AM 120, Basic Welding Techniques.

AM 150 EMISSION SYSTEMS (1-4-2)(SU). This course prepares the student in the principles and laws of various automotive emission systems to include the function, service and repair/replacement of components, diagnostic techniques, and compliance with emission standards.

AM 175 AUTOMATIC TRANSMISSION (3-4-4)(S). This course teaches the fundamentals of automatic transmissions and design features including servicing, diagnosis, trouble-shooting and proper removal, adjustment, installation, and testing procedures.

AM 180 INTRODUCTION TO MICROCOMPUTERS (1-0-1)(S). Introduces the student to microcomputer skills related to the automotive service field.

AM 190 AUTOMOTIVE HEATING AND AIR CONDITIONING (1-4-2)(S). This course introduces students to the principles and design of the heating and air conditioning system used in todays automobiles and teaches the student troubleshooting and repair techniques.

AM 195 ADVANCED ENGINE PERFORMANCE (3-4-4)(SU). The student will be taught the use of advanced diagnostic equipment to troubleshooting and repair automobile performance, with emphasis placed on electronic related problems.

AM 235 NIASE CERTIFICATION (2-3-2)(SU). This course is designed to prepare students for National Institute of Automotive Service Excellence Certification examinations. Prerequisite: permission of Division Manager.

AM 262 OCCUPATIONAL RELATIONS (2-4-2)(S). This course teaches job searching, proper completion of job application blanks, job keeping skills, resume and curriculum vital development, and telephone techniques.

Business & Office Education - Nine Month or Two Year Program

Certificate of Completion
Instructors: Karen Bounds, Doris Butler, Janet Carlton, Wanda Metzgar, Marge Williamson

The Business and Office Education Program is designed to meet the needs of students as they prepare to enter the business world in both private industry and government. Upon enrollment in the program, the student will have an opportunity to pursue a one-year certificate or a two-year Associate of Applied Science degree in the following options: Secretary; Word Processing; or Bookkeeper.

The one-year (Nine Month) Certificate of Completion is available both on campus and at the Canyon County facility.

The Business and Office Education Program is competency based; it specifies the performance objectives expected of the students and it identifies the necessary competencies to be employable in their chosen career.

Approved cooperative education in an office and/or competency testing may be substituted for a segment of a course with special permission of the program head and division manager.

A minimum grade of 'C' is required in all Business and office coursework to graduate with an Associate of Applied Science degree or a Certificate of Completion.

Business and Office Education (Word Processing Option)
Associate of Applied Science Degree

This option is designed for the student to obtain a basic knowledge of the business world and to develop the necessary skills to competently perform the duties required of this particular job.

Upon successful completion of this option, the learner will not only possess the necessary skills and knowledge to enter the world of work as a word processing operator, but will also have developed basic skills in proofreading and spelling, English usage, word processing, machine transcription, record keeping, and computer literacy.

School of Vocational Technical Education

FRESHMAN YEAR

Fall Spring

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<thead>
<tr>
<th>Business English Of 109</th>
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<td>Keyboarding Of 106</td>
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<td>Intermediate Typing Of 156</td>
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<td>Basic Office Procedures Of 107</td>
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<td>Proofreading and Spelling Of 119</td>
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<td>Intro to Information Processing Of 154</td>
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<td>Record Keeping Of 155</td>
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<td>Machine Transcription Of 158</td>
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SOPHOMORE YEAR

Fall Spring

| Advanced Typing Of 157 | 4          |
| Advanced Typing Of 157 | 4          |
| Computer Business Applications Of 206 | 3         |
| Word Processing I Of 203 | 3          |
| 2 Electives            | 6          |
| Records Management Procedures Of 251 | 3         |
| Word Processing II Of 253 | 3         |
| Job Seeking Skills/Bookkeeping Of 153 | 3        |
| Fundamentals of Supervision Of 253 | 3         |
| 2 Electives            | 6          |
| TOTAL                  | 19         |
|                        | 18         |

Business and Office Education (Bookkeeper Option)
Associate of Applied Science Degree

This option is designed for the student to obtain a basic knowledge of the business world and to develop the necessary skills to competently perform the duties required of this particular job.

Upon successful completion of this option, the learner will not only possess the necessary skills and knowledge to enter the world of work as a bookkeeper, but will also have developed basic skills in computer bookkeeping, word processing, data base management, proofreading and spelling, business English, and the use of spreadsheets.

FRESHMAN YEAR

Fall Spring

| Business Math Of 105    | 3          |
| Keyboarding Of 106      | 4          |
| or                     |            |
| Intermediate Typing Of 156 | 4         |
| Basic Office Procedures Of 107 | 3   |
| Bookkeeping I Of 108    | 4          |
| Business English Of 109 | 3          |
| Proofreading and Spelling Of 119 | 3         |
| Bookkeeping II Of 152   | 4          |
| Business Writing Of 159 | 3          |
| Intro to Information Processing Of 154 | 3     |
| Office Skills Practicum/Bookkeeping Of 016 | 3        |
| Job Seeking Skills/Career Planning Of 153 | 3        |
| ** 2 Electives          | 6          |
| TOTAL                   | 17         |
|                        | 16         |

SOPHOMORE YEAR

Fall Spring

| Spreadsheet I Of 201  | 2          |
| Intro to Data Base Management Of 202 | 2         |
| Intermediate Typing Of 156 | 4         |
| or                     |            |
| Advanced Typing Of 157 | 3          |
| Word Processing Of 203 | 3          |
| Computerized Bookkeeping Of 204 | 5         |
| Elective               | 3          |
| or                     |            |
| Word Processing Of 203 | 3          |
| Spreadsheet II Of 254  | 4          |
| Job Seeking Skills/Career Planning Of 153 | 3        |
| Fundamentals of Supervision Of 253 | 3         |
| Legal Environment Of Business GB 202 | 3         |
| Applied Business Communications Of 252 | 3        |
| TOTAL                  | 19         |
|                        | 19         |
School of Vocational Technical Education

Business and Office Education (Secretary Option)
Associate of Applied Science Degree

This option is designed for the student to obtain a basic knowledge of the business world and to develop the necessary skills to competently perform the duties required of this particular job.

Upon successful completion of this option, the learner will not only possess the necessary skills and knowledge to enter the world of work as a secretary, but will also have developed basic skills in proofreading and spelling, English usage, shorthand, word processing, machine transcription, record keeping, and Computer literacy.

FRESHMAN YEAR

**Fall**
- Business English OF 109 (3)
- Business Math OF 105 (3)
- Beginning Shorthand OF 125 (5)
- Intermediate Shorthand OF 151 (5)
- Keyboarding OF 106 or Intermediate Typing OF 156 (4)
- Basic Office Procedures OF 107 (3)
- Advanced Typing OF 157 (4)
- Advanced Shorthand OF 205 (5)
- Intro to Information Processing OF 154 (3)
- Record Keeping OF 155 (3)
**TOTAL** 18, 18

**Spring**
- Business Math OF 105 (3)
- Beginning Shorthand OF 125 (5)
- Office Occupations
- Basic Medical Terminology, Anatomy and Physiology OF 165 (2)
- Introduction to Medical Transcription OF 166 (2)
- Basic Principles of Law for Medical Transcriptionists and Medical Office Personnel OF 167 (1)
**TOTAL** 15, 15

**Sophomore Year**

**Fall**
- Proofreading and Spelling OF 119 (3)
- Advanced Shorthand OF 205 (5)
- Advanced Typing OF 157 (4)
- Word Processing I OF 203 (3)
- Computer Business Applications OF 206 (3)
- Records Management Procedures OF 251 (3)
- Machine Transcription OF 158 (3)
- Applied Business Communications OF 252 (1)
- Job Seeking Skills/Career Planning OF 153 (3)
- Fundamentals of Supervision OF 253 (3)
**TOTAL** 18, 18

**Spring**
- Word Processing II OF 203 (3)
- Business Writing OF 159 (3)
- Intermediate Shorthand OF 151 (5)
- Intro to Information Processing OF 154 (3)
- Record Keeping OF 155 (3)
**TOTAL** 15, 15

**Other Technical Electives**

- Fall (Evenings)
  - Basic Medical Terminology, Anatomy and Physiology OF 165 (2)
  - Introduction to Medical Transcription OF 166 (2)
  - Basic Principles of Law for Medical Transcriptionists and Medical Office Personnel OF 167 (1)
- Spring
  - Business English (2-4-3) (F/S)
  - Business Writing (2-4-3) (F/S)
  - Beginning Shorthand (2-4-3) (F/S)
  - Advanced Shorthand (2-4-3) (F/S)
  - Advanced Typing (2-4-3) (F/S)
  - Word Processing I (3-4-4) (F/S)
  - Computer Business Applications (3-4-4) (F/S)
  - Records Management Procedures (3-4-4) (F/S)
  - Machine Transcription (3-4-4) (F/S)
  - Applied Business Communications (3-4-4) (F/S)
  - Job Seeking Skills/Career Planning (3-4-4) (F/S)
  - Fundamentals of Supervision (3-4-4) (F/S)

**Course Offerings**

**OF OFFICE OCCUPATIONS**

**OF 115 OFFICE SKILLS PRACTICUM - WORD PROCESSING (0-2-0) (F/S).** Students will apply word processing knowledge and training in laboratory practice two hours weekly.

**OF 116 OFFICE SKILLS PRACTICUM - BOOKKEEPING (0-2-0) (F/S).** Students will apply bookkeeping knowledge and training in laboratory practice two hours weekly.

**OF 103 BUSINESS MATH (3-4-3) (F/S).** Fundamental operations of arithmetic in business usage. Applications of business math as used in accounting, management, consumer education, and retailing are stressed.

**OF 106 KEYBOARDING (3-4-4) (F/S).** Beginning class introducing the keyboard and basic typing skills. Emphasizes formatting business correspondence, tables and manuscripts. A speed of 30 WPM should be attained.

**OF 175 DATA ENTRY PROCEDURES (3-3-3) (F/S).** Students will cover the theory, principles and practices of data entry. Upon completion of this course, the student will have attained proficiency in the operation of a data entry terminal.

**OF 108 BOOKKEEPING (3-4-4) (F/S).** Designed to prepare students for the new environment in the modern office. Teaches the use of the general and specialized journals, general and subsidiary ledgers, how to prepare and balance financial statements, and an introduction to computerized bookkeeping.

**OF 109 BUSINESS ENGLISH (2-4-3) (F/S).** Emphasis on development of skills in grammar, sentence structure, word usage, punctuation, and vocabulary. Coverage of capitalization and number usage rules as well as abbreviations. Must complete course with C or better to continue. PREREQ: Demonstrated competency/preset.

**OF 119 PROOFREADING AND SPELLING (2-4-3) (F/S).** Emphasis on learning proofreading techniques with practical applications. Spelling rules and patterns and a mnemonics approach spelling will be covered and applied.

**OF 125 BEGINNING SHORTHAND (4-4-5) (F/S).** A beginning course in Gregg Shorthand (Series 90). Course includes the alphabet, brief forms, word beginnings and endings, phrasing, and word building principles learned through reading, writing, and taking dictation of extensive connected material.

**OF 151 INTERMEDIATE SHORTHAND (4-4-3) (F/S).** Application of shorthand principles to dictating new material rapidly. Emphasizes development of typewritten transcription skills and saleable letter skills. PREREQ: OF 125 or advanced placement through proficiency exam.

**OF 152 BOOKKEEPING II (3-4-4) (F/S).** Designed to provide a practical knowledge of bookkeeping systems and procedures. Primary concepts include job order and process cost allocation, planning, control responsibility for the accounting and reporting process. PREREQ: OF 108.

**OF 153 JOB SEEKING SKILLS/CAREER DEVELOPMENT (2-4-3) (F/S).** Will help students analyze their job needs and skills and prepare them to present those needed skills to a prospective employer in a professional manner. Emphasizes self-analysis, researching employers, resume and cover letter, effective interview techniques, and career planning.

**OF 154 INTRO TO INFORMATION PROCESSING (3-0-3) (F/S).** An introduction to the fundamentals of computers and information processing for students so that they may understand what a computer is, how it operates, and when a computer should be applied to the solution of personal and business problems.

**OF 155 RECORD KEEPING (2-4-3) (F/S).** Students proceed from very simple clerical tasks to the introduction of elementary double-entry bookkeeping concepts. Develops skills and knowledge that students can use in simple clerical office jobs in which record keeping is involved.

**OF 156 INTERMEDIATE TYPING (3-4-4) (F/S).** Experience in typing letter styles, manuscripts, tabulations, memorandums and business forms. Proofreading skills are stressed. PREREQ: OF 106 or acceptable performance on entrance test AND keyboarding speed of at least 30 WPM.

**OF 157 ADVANCED TYPING (3-4-4) (F/S).** Stresses speed, accuracy and production work. Practice in making decisions concerning formatting all types of documents with emphasis on mailability. PREREQ: OF 156 or acceptable performance on entrance test. AS keyboarding speed of at least 45 WPM.

**OF 158 MACHINE TRANSCRIPTION (2-4-3) (F/S).** Emphasis on the development of correct techniques, speed, and accuracy in the transcription of letters, memos, minutes, itineraries, and reports from recorded media. PREREQ: Typing speed of 35 WPM, OF 109, 119.

**OF 159 BUSINESS WRITING (2-4-3) (F/S).** Emphasis on building a foundation in effective business writing, principles of planning, organizing, and writing letters and memos and various types of business letters such as credit, collection, sales, claims adjustments. Psychology, format, content, and style of business letters will be covered. Grade of C or better is required to continue. PREREQ: OF 109.

**OF 165 BASIC MEDICAL TERMINOLOGY, ANATOMY AND PHYSIOLOGY (2-0-2) (F/S).** Provides an introductory study of medical terminology, anatomy and physiology, including the following: introduction to the structure and function of each body system; description of diseases and defects affecting each body system; related diagnostic tests, surgeries, and medications; practice in pronunciation, spelling, and abbreviation of all terminology.

**OF 166 INTRODUCTION TO MEDICAL TRANSCRIPTION (1-0-1) (F/S).** Emphasis on actual medical dictation; overview of medical transcription careers; transcription of actual medical dictation; overview of medical transcription careers. PREREQ: Completion of OF 165 or equivalent experience.

**OF 167 BASIC PRINCIPLES OF LAW FOR MEDICAL TRANSCRIPTIONISTS AND MEDICAL OFFICE PERSONNEL (1-0-1) (F/S).** Course presents basic principles of law for the hospital or office-based medical transcriptionist and medical office personnel. Includes: confidentiality of medical records, informed consent to treatment, and understanding the basics of the legal system as it relates to medical malpractice claims.

**OF 201 SPREADSHEET I (1-4-2) (F/S).** Introduction to electronic spreadsheets. Presents concepts of spreadsheet software; understanding the worksheet elements; the command menu; entering numbers, formulas and labels, specifying ranges; entering simple formulas; editing and printing. An eight-week course. PREREQ: OF 201.

**OF 202 INTRO TO DATA BASE MANAGEMENT (1-4-2) (F/S).** Introduction to data base management. Students will cover the theory, principles and practices of a data base system. Emphasis on database creation; data entry; edit data; how to search for data; create, run and print reports. Eight-week course. PREREQ: OF 201.

**OF 203 WORD PROCESSING I (2-4-3) (F/S).** Students will create, store, revise, format, and submit letters, memos, and simple tables on dedicated word processors, microcomputers, and computers. Must complete the course with C or better to continue. PREREQ: Typing speed of 40 WPM.

**OF 204 COMPUTERIZED BOOKKEEPING (4-4-5) (F/S).** An introduction to the principles of using computerized bookkeeping systems; transcription of actual business transactions; preparation of financial statements. PREREQ: OF 108, OF 152.
Course Offerings

BM BUSINESS MACHINE TECHNOLOGY

BM 111-112 COMMUNICATION SKILLS (3-0-3). Objective to enable students to use language effectively as a tool for the Office Machine Industry: i.e., writing and verbal communication for sales and technical repair. (3 clock hours per week).

BM 113 CUSTOMER RELATIONS (2-0-2). Directed toward the tact and methods necessary to communicate with the public. (2 clock hours per week).

BM 155 BUSINESS MACHINE TECHNOLOGY (5-7-9). This is a hands on theory/lab course in which the student is taught basic mechanical applied theory. (22 clock hours per week).

BM 156 BUSINESS MACHINE TECHNOLOGY (5-15-9). This is a hands on theory/lecturer lab course in which the student is taught basic concepts of business machines repair. (20 clock hours per week).

BM 157-158 BASIC ELECTRONIC THEORY (4-1-4). Deals with basic electronics including properties of electronic components (5 clock hours per week).

BM 255-256 ADVANCED BUSINESS MACHINE TECHNOLOGY (17-17-11). This is a hands on theory/lab course in which the student is taught basic concepts of business machines repair including a special emphasis in troubleshooting techniques. Shop management, retail selling, computer programming and related

math are also included. (24 clock hours per week) PREREQ: BM 155-156-157.

BM 271-272 ADVANCED ELECTRONIC THEORY (7-0-7). This course is a study of digital electronics, semiconductors, microprocessors. (7 clock hours per week).

Child Service/Management

Day Care Assistant - Nine Month Program

Certificate of Completion

Instructors: Peg Gourley, Joan Lingenfelter

This program is planned for people interested in working with children, as an assistant in private, play grounds, camps, day care centers, nurseries, kindergartens, and child development centers.

Day Care Supervisor - Two Year Program

Associate of Applied Science Degree

Graduates will be trained to assist or operate a day care center which provides for physical care, emotional support, and social development of children.

This two year course will provide students with the opportunity to direct children's play, provide food, supervise workers, and manage resources in a nursery school setting. Completion of the program defined as Child Care Assistant is a prerequisite to the supervisor level program.

Course Offerings

CC CHILD CARE STUDIES

CC 101-151 INTRODUCTION TO CHILD DEVELOPMENT (3-0-3). Basic principles of child growth and development, the individual needs of preschool children, their language, development, and understanding of children's behavior and techniques of guidance and discipline.

CC 111,112 COMMUNICATION SKILLS (3-0-3). Objective: to enable students to use language effectively as a tool for logical thinking, problem solving, technical writing and speaking required in their major field of training.

CC 125-126 CONTRACTED FIELD EXPERIENCE IN EARLY CHILDHOOD PROGRAMS (0-4-1). Individual contract arrangement involving students, instructor and cooperating community agency to gain practical experience in off-campus settings. The student will visit, observe, and participate in community child care settings.

CC 135-136 PLANNING AND EVALUATION OF LABORATORY EXPERIENCE (2-0-2). Classroom lecture and discussion to include lab observation and records, methods of curriculum planning and evaluation, activity plans, classroom objectives, and staff performance and relations.

CC 141 HEALTH AND CARE OF THE YOUNG CHILD (3-0-3). Safeguarding, nutrition, general health education, identification of, treatment and prevention of common childhood diseases as applied to children in child care centers. Also includes maintenance of teachers health, care cross multimedia first-aid emergency training and a workshop on the safe maintenance of toys and equipment.

CC 171-172 CURRICULUM OF THE YOUNG CHILD (3-0-3). Curriculum media
suitable for preschool children. Includes theories of teaching curriculum subjects; the need for a curriculum in nursery school; and specific information, materials and the opportunity to use them in the following areas: art, story telling, music, environmental science, beginning number and letter recognition.

CC 181-182 CHILD CARE LABORATORY (0-12-3). Observation and participation in the laboratory preschool. Student will serve as aide and assistant teacher, working directly with the children; attend staff meetings, plan and carry on a variety of daily activities and become acquainted with curriculum, classroom arrangement, schedules, child guidance, staff responsibilities.

CC 201-202 CHILD CARE CENTER SUPERVISION (1-12-4). With instructor supervision, students will assume responsibility of lab preschool and plan curriculum activities, supervise staff, plan daily and weekly schedules and study techniques for child evaluations and parent conferences. Emphasis is placed on child guidance techniques and curriculum development. PREREQ: CC 181-182.

CC 225-226 CONTRACTED PRACTICUM IN EARLY CHILDHOOD PROGRAMS (0-8-2). A course designed to meet specific needs of the student as determined by both the student and instructor. A practical application of knowledge and skills in community child care settings. Individual contract arrangement involving student, instructor and cooperating agency to gain practical experiences in off-campus settings. PREREQ: CC 125-126.

CC 231-232 CHILD CARE CENTER MANAGEMENT (2-4-2)(F/S). Introduction to the business practices in the operation of a child care center. Includes business arithmetic, record keeping, purchasing of supplies and equipment, and employer-employee relationships. Also includes licensing procedures required for day care centers.

CC 241-242 FEEDING CHILDREN (3-0-3). Nutritional requirements of preschool children in child care centers. Students plan, purchase, prepare and serve nutritious snacks and meals to children in the CC lab. Also emphasized will be handling food allergies, economics of good nutrition and the development of positive mealtime attitudes.

CC 252 FAMILY AND COMMUNITY INVOLVEMENT WITH CHILDREN (3-4-3). History and dynamics of family interaction; review of cultural life styles. Emphasis will be placed on the need for establishing effective relationships with parents of children in child care centers and the community resources available to both parents and the center.

CC 255 ADVANCED CHILD CARE (3-0-3)(F). A review of the history of child care and present day child care facilities in the U.S. and locally. Also covered in class are classroom management, care for exceptional children and qualifications of people caring for children in group situations. PREREQ: CC 101-151.

CC 256 INTRODUCTION TO KINDERGARTEN CURRICULUM (2-0-2)(S). Kindergarten curriculum theory and practices are presented so that the student has a working knowledge of the kindergarten classroom. PREREQ: CC 255.

CC 257 INFANT AND TODDLER CARE (2-0-2)(S). Total care of infants and toddlers in group day care homes and centers. Besides physical care emphasis is also placed on the emotional and social nurturing of infants and toddlers. PREREQ: CC 101-151.

CC 261 OCCUPATIONAL RELATIONS (2-4-2). Course is designed to enable a student to become skilled in dealing effectively with people and for applying, getting, maintaining and advancing in employment. One semester course.

Culinary Arts Program

Certificate of Completion - 1 Year
Associate of Applied Science - 2 Years
Instructors: Julie Kuhn, Phil Walsh

The purpose of the Culinary Arts Program is to provide basic training and education for cooks, apprentice chefs, and managers.

The curriculum offers students an opportunity to:

• Learn and effectively practice basic and advanced technical skills in food preparation and service.

• Understand the principles of food identification, nutrition and food, and beverage composition.

• Acquire basic supervisory skills to better utilize human and physical resources in food service operations.

• Gain experience in the proper use and maintenance of professional food service equipment.

• Become familiar with the layout and work flow of professional kitchens and bakeshops. Gain appreciation for the history, evolution and international diversity of the culinary arts.

• Develop a personal sense of professionalism necessary for working successfully in the food service industry.

The core of the Culinary Arts Program curriculum at Boise State University is the hands-on teaching of cooking and baking skills as well as the theoretical knowledge that must underlie competency in both fields.

The objective is to not only teach students to work in the kitchen, but how it functions. Related to our mission of professional training are the courses that complete a food service education: table service, wines, bar management, menu, facilities planning, cost controls, supervision development, storeroom and stewarding.

Upon enrollment in the program, the student will have the opportunity to pursue a one-year Certificate of Completion, or a two-year Associate of Applied Science degree in Culinary Arts.

A minimum grade of 'C' is required in all course work to receive a Certificate of Completion or an Associate of Applied Science degree.

FIRST SEMESTER

<table>
<thead>
<tr>
<th>Course</th>
<th>Credit Hours</th>
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<tbody>
<tr>
<td>CA 102 Culinary Skills Development</td>
<td>3</td>
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<tr>
<td>CA 103 Sanitation, Safety, Health</td>
<td>2</td>
</tr>
<tr>
<td>CA 104 Introductory Baking</td>
<td>2</td>
</tr>
<tr>
<td>CA 105 Cost Controls</td>
<td>1</td>
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<tr>
<td>CA 106 Product Identification</td>
<td>1</td>
</tr>
<tr>
<td>CA 107 Storeroom</td>
<td>1</td>
</tr>
<tr>
<td>CA 108 Legal Implications/Culinary Arts</td>
<td>1</td>
</tr>
<tr>
<td>CA 109 Culinary French</td>
<td>1</td>
</tr>
<tr>
<td>CA 112 Introductory Hot Foods</td>
<td>1</td>
</tr>
<tr>
<td>CA 113 Pantry, Basic Garde Manger</td>
<td>3</td>
</tr>
<tr>
<td>CA 114 Communications Skills</td>
<td>3</td>
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<td><strong>TOTALS</strong></td>
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SECOND SEMESTER

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<tbody>
<tr>
<td>CA 115 Dining Room Procedures</td>
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<tr>
<td>CA 116 Meat Identification &amp; Fabrication</td>
<td>1</td>
</tr>
<tr>
<td>CA 117 Stewarding</td>
<td>1</td>
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<tr>
<td>CA 118 Charcuterie (Sausage Making)</td>
<td>1</td>
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<tr>
<td>CA 119 Supervisory Development</td>
<td>1</td>
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<tr>
<td>CA 121 American Regional Cookery</td>
<td>1</td>
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<tr>
<td>CA 122 Fish Cookery</td>
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<tr>
<td>CA 123 Communication Skills II</td>
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<tr>
<td>CA 125 Occupational Relations</td>
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<tr>
<td>CA 127 Kitchen Laboratory</td>
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THIRD SEMESTER

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<tr>
<td>CA 202 Advanced Culinary Skills</td>
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<tr>
<td>CA 204 Advanced Baking</td>
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<tr>
<td>CA 205 Advanced Cost Controls-Management Systems</td>
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<tr>
<td>CA 206 Advanced Classical Baking</td>
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<tr>
<td>CA 207 Wine Appreciation</td>
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<td>CA 208 Beverage Control Systems</td>
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<td>CA 209 Menu &amp; Facilities Planning</td>
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<td>CA 212 International &amp; Oriental Cuisine</td>
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<td>CA 224 Kitchen Laboratory</td>
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<td>CM 111 Funds of Speech</td>
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<td><strong>TOTALS</strong></td>
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FOURTH SEMESTER

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<tr>
<td>CA 213 Advanced Garde Manger</td>
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</tr>
<tr>
<td>CA 215 Advanced Classical Cuisine</td>
<td>1</td>
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<tr>
<td>CA 216 Banquet Organization</td>
<td>1</td>
</tr>
<tr>
<td>CA 217 Dining Room a la Carte Preparation</td>
<td>1</td>
</tr>
<tr>
<td>CA 218 American Bounty a la Carte Foods</td>
<td>1</td>
</tr>
<tr>
<td>CA 224 Kitchen Laboratory</td>
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<td>Approved Electives: Two required:</td>
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<tr>
<td>GB 101 Intro to Business</td>
<td>3</td>
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<tr>
<td>EC 202 Principles of Economics-Micro</td>
<td>3</td>
</tr>
<tr>
<td>CM 112 Reasoned Discourse</td>
<td>3</td>
</tr>
<tr>
<td>MM 250 Intro Microcomputers in Retailing</td>
<td>3</td>
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<tr>
<td><strong>TOTALS</strong></td>
<td><strong>17</strong></td>
</tr>
</tbody>
</table>

Course Offerings

CA CULINARY ARTS

CA 102 CULINARY SKILLS DEVELOPMENT (3-2-3)(F/S). During this introduction to the basic fundamentals, skills and concepts of basic cooking, special emphasis is given to the study of ingredients, cooking theories and procedures. Basic cooking methods stressed and practiced including: sautéing, broiling, roasting, poaching, simmering, braising, pan frying, deep fat frying, stewing and fricasseeing.

CA 103 SANITATION, SAFETY & HEALTH (2-0-2)(F/S). Theory and practice of food and environmental sanitation in a food production area are stressed, with attention to food-related diseases and their origins. The sanitation course has been reviewed for compliance and approved by the Federal Food and Drug
CA 104 INTRODUCTORY BAKING (2-1-2)(F/S). This course gives instruction in the fundamentals of baking. Emphasis on ingredients, terminal vocabulary, ingredients, weights and measures, formula conversion, and storage.

CA 105 COST CONTROL (1-0-1)(F/S). An introduction to the food service cost control method, procedures and math.

CA 106 PRODUCT IDENTIFICATION (1-0-1)(F/S). Introduction to the food products used in the food service/hospitality industry. Special emphasis is placed on the characteristics, quality factors, availability, storage and use of fruits, vegetables and cheese.

CA 107 STOREROOM (1-0-1)(F/S). Students learn how to staff an operating storeroom and participate in receiving, storing and issuing of merchandise. Emphasis is placed on proper control and reporting procedures with preparation of daily, weekly and monthly reports. Lectures cover purchasing regulations, Federal and trade grades, yields and quality controls are explained.

CA 108 LEGAL IMPLICATIONS/CULINARY ARTS (1-0-0)(F/S). Legal requirement affecting food service operations.

CA 109 CULINARY FRENCH (1-0-0)(F/S). Explanations of basic culinary French terminology and menu phrases.

CA 112 INTRODUCTORY HOT FOODS (3-2-3)(F/S). Basic menu items such as soups, sauces, stocks, vegetables and entrées are prepared. Fundamental concepts and techniques of food preparation are first demonstrated by the instructors and then practiced by the students.

CA 113 PANTRY, BASIC GARDE MANGER (3-2-3)(F/S). A survey course in the fundamentals of pantry, basic garde manger, and breakfast cookery. Students are instructed in the proper techniques and procedures for preparing a variety of dishes. Emphasis is placed on proper control and reporting procedures with preparation of daily, weekly and monthly reports. Lectures cover purchasing regulations, Federal and trade grades, yields and quality controls are explained.

CA 114 COMMUNICATION SKILLS (3-0-3)(F/S). Study of terms, attributes, and the mechanics of language for logical thinking, speaking, and writing. Training includes an introduction to inference using both verbal and symbolic techniques. Industrial applications include organization and delivery of technical reports in written and oral forms, business correspondence, and resume preparation.

CA 115 DINING ROOM PROCEDURES I (1-0-1)(F/S). This basic course in dining room and supervision covers equipment, personnel responsibility, organization, responsibility and supervision, table arrangements and set-ups. Service techniques for American table service are practiced. Basic gueidon service is explained and demonstrated.

CA 116 MEAT IDENTIFICATION AND FABRICATION (1-0-1)(F/S). Instructors demonstrate the cutting of meat and poultry into fabricated units and explain grading, quality and yield.

CA 117 STEWARDING (1-0-1)(F/S). Stewarding functions and personnel responsibility are detailed through lecture and demonstration. Students participate in inventory control and learn procedures for the purchase of china, glass, silver, and linen.

CA 118 CHARCUTERIE (SAUSAGE MAKING) (1-0-1)(F/S). This course teaches and gives understanding through lecture, demonstration and hands-on all phases of sausage making, including smoking methods. For total utilization of meat by-products, students prepare various syrups, pates, sauces, stocks, vegetables and entrees. Certain meats are cut up to keep quality purchased fish, crustaceans and mollusks fresh. Students butcher fish, lobster, crabs, and practice the basic fundamentals of fish cookery. They also prepare stocks, soups and foundation sauces, and learn to highlight a variety of seasoned specialties.

CA 122 FISH COOKERY (1-0-1)(F/S). Affords students the opportunity to actually identify, store, rotate, issue and learn the disciplines that must be practiced to keep quality purchased fish, crustaceans and mollusks fresh. Students butcher fish, lobster, crabs, and practice the basic fundamentals of fish cookery. They also prepare stocks, soups and foundation sauces, and learn to highlight a variety of seasoned specialties.

CA 123 COMMUNICATION SKILLS II (3-0-3)(F/S). Study of terms, attributes, and the mechanics of language for logical thinking, speaking, and writing. Training includes an introduction to inference using both verbal and symbolic techniques. Industrial applications include organization and delivery of technical reports in written and oral forms, business correspondence, and resume preparation.

CA 124 KITCHEN LABORATORY (2-22-5)(F/S). This lab will be used for the following classes: CA 115, CA 116, CA 118, CA 121, and CA 122.

CA 202 ADVANCED CULINARY SKILLS (1-0-1)(F/S). Emphasis is given to fine-turning of the basic competencies covered up through second semester. Students prepare small sauces, quenelles, salpicons and forecaments as applicable in a hot kitchen. Presentation of plated food as practiced in fine restaurants.

CA 207 WINE APPRECIATION (1-0-1)(F/S). The wines of France, Italy, Germany, and America are discussed. Students are introduced to inference using both verbal and symbolic techniques. Industrial applications include organization and delivery of technical reports in written and oral forms, business correspondence, and resume preparation.

CA 208 BEVERAGE CONTROL SYSTEMS (1-0-1)(F/S). This comprehensive review of beverage control in food service establishments includes purchasing, receiving, storage and issuing procedures. An in-depth study is made of portion and quality control, costing, merchandising, stocking the bar, and perpetual and physical inventories. The nature of various spirits, beers and alcoholic beverages. Preparation and identification of all drinks demonstrated. Off campus. Majors only.

CA 210 INTERNATIONAL AND ORIENTAL CUISINE (1-0-1)(F/S). Students research and prepare menus representative of different countries and cultures. Courses emphasized are Middle Eastern, Spanish. South American, German and Austrian, Swiss, Scandinavian, Italian, Belgian, and Dutch. Students prepare different menus based on actual Chinese (Szechwan, Cantonese, Peking, Hunan), Japanese and Polynesian recipes.

CA 211 ADVANCED GARDE MANGER (1-0-1)(F/S). Students progress in cold food preparation and presentation techniques. Charcuterie, specialty canapes, hors d'oeuvres, appetizers, pates, galantines, and the utilization of indigenous ingredients in the preparation of American cuisine. Timing and conversion of recipes are emphasized. At the conclusion of this course, students participate in inventory control and learn procedures for the purchase of china, glass, silver, and linen.

CA 212 INTERNATIONAL AND ORIENTAL CUISINE (1-0-1)(F/S). Students research and prepare menus representative of different countries and cultures. Courses emphasized are Middle Eastern, Spanish. South American, German and Austrian, Swiss, Scandinavian, Italian, Belgian, and Dutch. Students prepare different menus based on actual Chinese (Szechwan, Cantonese, Peking, Hunan), Japanese and Polynesian recipes.
School of Vocational Technical Education

Entrance requirements: High School Diploma or Equivalency Certificate, personal interview and aptitude testing. The dental assistant courses are taught by dental assistant instructors and guest dental lecturers.

The program in Dental Assisting is accredited by the Commission on Dental Accreditation, a specialized accrediting body recognized by the Council on Postsecondary Accreditation and the United States Department of Education. Students are eligible to take the Certification Examination upon completion of this course.

Course Offerings

DA DENTAL ASSISTING
DA 101-102 DENTAL LABORATORY (2-10-4)(F), (1-5-2)(S). Provides practical laboratory experience in handling dental materials and instruments.
DA 104 DENTAL RADIOLOGY (3-5-4)(F). Provides dental assisting students the opportunity to become skilled in dental x-ray procedures with a heavy emphasis on safety.
DA 106 DENTAL ASSISTING CLINICAL EXPERIENCE (6-16-4)(S). Supervised chairside assisting experience in private dental offices and clinics.
DA 108 DENTAL OFFICE MANAGEMENT (2-0-2). Covers the fundamentals of business practices related to dentistry.
DA 109 PUBLIC HEALTH AND DENTAL HYGIENE (2-4-2). The class work deals with preventive dentistry and patient education.
DA 111, 112 COMMUNICATION SKILLS (3-4-3)(F/S). Study of terms, attributes, and the mechanics of language for logical thinking, speaking, and writing. Training includes an introduction to inference using both verbal and symbolic techniques. Industrial applications include organization and delivery of technical reports in written and oral forms, business correspondence, and resume preparation.
DA 151-152 DENTAL THEORY (6-0-6)(F), (6-0-6)(S). Lectures cover the basic dental sciences and dental specialties.
DA 262 OCCUPATIONAL RELATIONS (3-0-2). The course is designed to enable a student to become skilled in dealing effectively with people; ethics and responsibilities within the law; job application and interviewing. One Semester course.

Drafting Technology - Two Year Program:

Associate of Applied Science Degree
Instructors: Danny Benton, Ralph Burkey, Tom Olson, Don Watts

This curriculum is organized to provide engineering departments, government agencies, consulting engineers and architectural firms with a technician well versed in the necessary basic skills and knowledge of conventional and computer aided drafting. The student is required to develop and maintain the same standards and techniques used in firms or agencies that employ draftsmen.

FIRST SEMESTER
Drafting Lab and Lecture DT 101 .................. 4
Communication Skills DT 111 .................. 3
Mathematics DT 131 .......................... 5
Applied Physics DT 141 .................. 3
Manufacturing Processes DT 153 .................. 2
TOTAL 17

SECOND SEMESTER
Drafting Lab and Lecture DT 102 .................. 4
Communication Skills DT 112 .................. 3
Introduction to Surveying DT 122 .............. 2
Mathematics DT 132 .................. 3
Applied Physics DT 142 .................. 3
Construction Codes DT 172 .................. 2
TOTAL 17

THIRD SEMESTER
Drafting Lab and Lecture DT 201 .................. 4
Descriptive Geometry DT 221 .................. 3
Applied Mathematics DT 231 .................. 3
Statics DT 241 .................. 4
Graphics DT 261 .................. 1
Occupational Relationships DT 262 .................. 2
TOTAL 17

FOURTH SEMESTER
Drafting Lab and Lecture DT 202 .................. 4
Technical Report Writing DT 222 .............. 2
Applied Mathematics DT 232 .................. 3
Specialized Graphics DT 263 .................. 2
Strength of Materials DT 242 .................. 4
TOTAL 15

Course Offerings

DT DRAFTING TECHNOLOGY

DT 101 DRAFTING LABORATORY AND LECTURE (1-14-4). Mechanical drafting with basic drafting techniques, standards, methods, and basic block and schematic diagrams for electronics and piping with introduction to computer assisted drafting.

DT 102 DRAFTING LABORATORY AND LECTURE (1-14-4). Architectural drafting with tension compression and bending; introduction to limited structural design. PREREQ: DT 101.

DT 111, 112 COMMUNICATION SKILLS (3-4-3)(F/S). Study of terms, attributes, and the mechanics of language for logical thinking, speaking, and writing. Training includes an introduction to inference using both verbal and symbolic techniques. Industrial applications include organization and delivery of technical reports in written and oral forms, business correspondence, and resume preparation.

DT 122 SURVEYING (3-2-2). Introduction to surveying, methods and computation. Required field work with emphasis on compiling data and office computation. PREREQ: or Coreq: DT 132.

DT 131 MATHEMATICS (4-1-4). Fundamentals of algebra with an introduction to basic algebra and arithmetic operations with fractions, decimals, percent, powers, operations with signed numbers, solutions of simple equations, factoring operations with algebraic expressions. One year high school algebra with satisfactory grade or equivalent required.

DT 132 MATHEMATICS (3-1-3). Plane geometry, basic coordinate geometry, basic trigonometry and spatial geometry. Course includes many applied problems. PREREQ: DT 131 or equivalent.
DT 141 APPLIED PHYSICS (3-0-3). Course covers properties of solids, liquids and gases with emphasis on introduction to strength of materials. Also temperature and effects of heat, heat transfer and change of state of matter are covered. Emphasis placed on problem solving. One year high school algebra with satisfactory grade or equivalent.

DT 142 APPLIED PHYSICS (3-0-3). Course covers vectors and graphic methods with emphasis on forces exerted on structural members in astatic position; force and motion; work-energy and power and basic machines. CoreQ: DT 132 or equivalent.

DT 153 MANUFACTURING PROCESSES (2-1-2). A survey of machines, machine tools, production methods, and quality control methods.

DT 172 CONSTRUCTION CODES (2-6-2). Introduction to national and local building, electrical, plumbing and fire codes, as pertaining to residential and light commercial building, construction. Emphasis on FHA, VA and conventional standard requirements. (Open to non-drafting technology majors - space permitting.)

DT 201 DRAFTING LABORATORY AND LECTURE (1-1-4). Civil drafting, mapping, highway curvves and earthwork using conventional and computer drafting techniques. PREREQ: DT 122, 132, 102.


DT 221 DESCRIPTIVE GEOMETRY AND DEVELOPMENT (3-1-3). Theory and practice of coordinate projection applied to the solution of properties of points, lines, planes and solids with practical drafting applications.

DT 222 TECHNICAL REPORT WRITING (2-2-2) [F/S]. Objective: to enable students to meet the job-stands of report preparation in the field of drafting.

DT 231 APPLIED MATHEMATICS (3-1-3). Solution of practical problems involving concepts from DT 131 and DT 132 Math. PREREQ: DT 132.

DT 232 APPLIED MATHEMATICS (3-1-3). Application and expansion of mathematics, statics and strength of materials. Related to lab projects. PREREQ: DT 231.

DT 241 STATICS (4-0-4). Introductory course in statics with emphasis on analysis of simple structures. PREREQ: DT 132.


DT 261 GRAPHICS (1-1-1) [F/S]. Introduction to graphic presentation methods used in industry, such as isometric and perspective rendering, charts, graphs and pictorial representations. (Open to non-drafting technology majors - space permitting.)

DT 262 OCCUPATIONAL RELATIONS (2-6-2). This course is designed to enable a student to become skilled in dealing effectively with people and for applying, getting, maintaining and advancing in employment. One semester course.

DT 263 SPECIALIZED GRAPHICS (2-1-2). An intensive study of perspective and rendering as used in industrial illustration, architectural rendering and civil engineering. Related to lab-orientated. PREREQ: DT 261 (Open to non-drafting technology majors - space permitting).

Electronics Technology -
Nine Month Program

Certificate of Completion

Instructor: Gerald McKie

The Electrical Lineworker Program provides the student with the best and most complete basic preparation possible in overhead and underground construction and maintenance procedures. Centering around a basic program of performance based objectives, instructional materials and field experiences, the program provides the student with the necessary skills and knowledge needed as a firm foundation in this rapidly advancing field.

In the laboratory experience with equipment such as transformers, oil circuit breakers, switches, materials and pole line hardware, hot line tools, test equipment, bucket truck, line truck, trencher/backhoe, and related equipment components, provides the student with "hands on" experience permitting further and more concentrated advancement in these skilled areas.

The program is designed to produce a highly skilled, well-informed entry level lineworker who is familiar with use of all tools, materials, and equipment of the trade. The areas of first aid, personal safety, and occupational safety are stressed as integral parts of each area of the craft.
School of Vocational Technical Education

Semiconductor Technology - Two Year Program

Associate of Applied Science Degree

The successful completion of ET 131-132 or M-111, or the equivalent is prerequisite for this major.

1st Year

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
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<tr>
<td><strong>FIRST YEAR</strong></td>
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<tr>
<td>General Physics PH 101-102</td>
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<tr>
<td>College Chemistry C 131</td>
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<tr>
<td>Chemistry Lab C 132</td>
<td>3</td>
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<tr>
<td>Advanced Electronics Math ET 231-232</td>
<td>3</td>
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<tr>
<td>Communication Skills ET 111-112</td>
<td>3</td>
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<tr>
<td>Intro to Digital Electronics ET 161</td>
<td>2</td>
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<tr>
<td>Intro to Integrated Circuit Industry ET 181</td>
<td>2</td>
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<tr>
<td>Intro to Integrated Circuit Processing ET 182</td>
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**SECOND YEAR**

<table>
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<tr>
<td>Digital Systems I and II ET 162, ET 264</td>
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<tr>
<td>Technical Report Writing ET 113</td>
<td>2</td>
</tr>
<tr>
<td>Intro to Solid State Physics ET 291</td>
<td>3</td>
</tr>
<tr>
<td>Solid State Device Physics ET 292</td>
<td>3</td>
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<tr>
<td>Integrated Circuit Layout ET 281</td>
<td>2</td>
</tr>
<tr>
<td>Electronics Theory I and Lab ET 151-151-101</td>
<td>5</td>
</tr>
<tr>
<td>Electronics Theory II and Lab ET 152-102</td>
<td>5</td>
</tr>
<tr>
<td>Solid State Devices I ET 172</td>
<td>3</td>
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<tr>
<td>*Elective</td>
<td>3</td>
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<td><strong>Total</strong></td>
<td>15</td>
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</table>

Total Number of Credit Hours: 69

*The electives shall be selected from the areas of Business, Economics, and/or Human Relations.

Course Offerings

**ET ELECTRONIC TECHNOLOGY**

**ET 101 ELECTRONICS LABORATORY I (0-10-3)(F/S)** Experiments in direct current electronics. Study of resistance, dc circuit behavior, dc applications of capacitors and inductors, operation of transistor circuits, and characteristics of dc test equipment. PREREQ: ET 101.

**ET 102 ELECTRONICS LABORATORY II (0-5-1)(F/S)** Experiments in alternating current electronics. Study of reactance, impedance, ac circuit behavior, ac transistor circuits, ac circuit devices, and characteristics of ac test equipment. PREREQ: ET 101.

**ET 111, 112 COMMUNICATION SKILLS (3-0-3)(F/S)** Study of terms, attributes, and the mechanics of language for logical thinking, speaking, and writing. Training includes an introduction to inference using both verbal and symbolic techniques. Industrial applications include organization and delivery of technical reports in written and oral forms, business correspondence, and resume preparation.

**ET 113 TECHNICAL REPORT WRITING (1-4-2)(F)** Composition of standardized technical reports, proper usage of electrical schematic drawings and proper use of headings and punctuation.

**ET 131 ELECTRONICS MATHEMATICS I (3-3-2)(F/S)** The number system, algebra and algebraic equations, functions and the graphing of functions, exponential and logarithmic equations, and plane geometry and trigonometry.

**ET 132 ELECTRONICS MATHEMATICS II (3-2-3)(F/S)** Complex numbers, vectors and vector mathematics, trigonometric functions and equations, and graphing of trigonometric functions. PREREQ: ET 131.

**ET 142 BASIC PHYSICAL SCIENCE (3-0-3)(F/S)** Course covers concepts of force, displacement, power and energy and mechanical physical principles including mass, momentum, velocity, acceleration, and moment of inertia. Emphasis is placed on problem solving. PREREQ: One year high school algebra with satisfactory grade or equivalent.

**ET 151 ELECTRONIC THEORY I (4-1-4)(F/S)** Theory of direct current electricity, its behavior in dc circuits, resistance and physical properties contributing to resistance, errors in calculation, dc power, dc current and voltage laws, dc circuit analysis, and physical properties of circuit components.

**ET 152 ELECTRONIC THEORY II (4-1-4)(F/S)** Theory of alternating current electricity, its behavior in electronic circuits, properties of reactance and impedance, ac circuit analysis, tuned circuits and resonance, mutual inductance, and transformers. PREREQ: ET 151.

**ET 161 INTRODUCTION TO DIGITAL ELECTRONICS (2-0-2) (F)** Introduction to binary number system, Boolean functions and mathematics, basic logic gates and logic families, Karnaugh mapping and Boolean simplification of logic functions.


**ET 163 DIGITAL SYSTEMS LAB I (0-4-1)(F/S)** Laboratory exercises to complement ET 162. See ET 162 course description. PREREQ: ET 161.


**ET 173 SOLID STATE DEVICES II (4-0-4)(F)** Laboratory exercises to complement ET 172. Diode rectification circuits, transistor biasing and amplifying circuits. Class A, AB, B, and C amplifier circuits, troubleshooting of diode and transistor circuits.

**ET 181 INTRODUCTION TO INTEGRATED CIRCUIT INDUSTRY (2-0-2)(F)** Overview of the integrated circuit: its history, applications, and manufacturing. Course will cover technical aspects lightly and will focus on economic and social impact. PREREQ: ET 131-132, or M 111 or equivalent.

**ET 182 INTRODUCTION TO INTEGRATED CIRCUIT PROCESSING (2-0-2)(F)** Examination of the manufacturing techniques and processes necessary to build an integrated circuit from raw materials to final products. The emphasis is on conceptual aspects of processing; however, mechanisms and modeling will be discussed. PREREQ: ET 131-132 or M 111 or the equivalent.

**ET 183 INTEGRATED CIRCUIT PROCESSING (2-0-2)(F)** A descriptive treatment, in some chemical and mathematical detail, of the processes used to manufacture integrated circuits. PREREQ: ET 181, 182.

**ET 201 LINEAR SYSTEMS LAB (0-9-1)(F)** Laboratory exercises to complement ET 201. Linear amplifier and signal processing circuits including integrators, differentiators, active filters, oscillators, comparators, differential amplifiers, and specialized non-linear amplifiers. PREREQ: ET 152, ET 172.

**ET 202 TELECOMMUNICATIONS (0-5-1)(F)** Laboratory exercise to complement ET 252. Communication experiments in radio frequency generation and measurement, amplitude and frequency modulation, frequency shift keying, pulse width and position modulation, radio frequency reception circuits, demodulation and detection, heterodyne systems, and automatic frequency control. PREREQ: ET 251.


**ET 231 LINEAR SYSTEMS (3-2-3)(F)** Linear circuit processing. Operational amplifier circuits, operational amplifiers, operational amplifier power supply considerations. PREREQ: ET 152.


**ET 262 OCCUPATIONAL RELATIONS (2-0-2)(F)** Course is designed to enable a student to become skilled in dealing effectively with people and for applying, getting; maintaining and advancing in employment. One semester course.

**ET 264 DIGITAL SYSTEMS II (2-0-2)(F)** Implementation of sequential logic flip-flops, converters, encoders, decoders, arithmetic logic systems and computer equipment. PREREQ: ET 162.

**ET 265 DIGITAL SYSTEMS LAB II (0-4-1)(F)** Laboratory exercises to complement ET 264. See ET 264 course description. PREREQ: ET 162.

**ET 273 SOLID STATE DEVICES II (2-0-2)(F)** Study of solid state devices including silicon controlled rectifiers, tunnel diodes, optoelectronic devices, power field effect transistors, and thyristors. PREREQ: ET 172.

**ET 274 SOLID STATE DEVICES LAB II (0-4-1)(F)** Laboratory exercises to complement ET 273. Study of characteristics of SCR devices, photodiodes and phototransistors, light emitting diodes, laser diodes, LASC devices, power field effect transistors, solid state temperature sensors and strain gauges. PREREQ: ET 172.


**ET 276 DIGITAL SYSTEMS LAB III (0-3-1)(F)** Laboratory exercises to complement ET 275. See ET 275 course description. PREREQ: ET 264.


ET 281 INTEGRATED CIRCUIT LAYOUT (2-0-2)(S). Lecture and drafting techniques used in the design of integrated circuit photolithographic masks. Focus to be on N-MOS silicon gate memory devices. PREREQ: ET 183.

ET 291 INTRODUCTION TO SOLID STATE PHYSICS (3-0-3)(S). Study of the electrical and thermal properties of solids, metals and semiconductors, in particular. Other selected topics from solid state and low temperature physics. PREREQ: PH 102 or PH 220.224.

ET 292 SOLID STATE DEVICE PHYSICS (3-0-3)(S). Introduction to the theory underlying the operation of semiconductor devices. The emphasis is placed on qualitative understanding and simple quantitative models. PREREQ: PH 291, ET 231 or M 204, C 131.

Electronics Service Technology - Two Year Program

Associate of Applied Science Degree

This program is designed to prepare the student for entrance level employment in the heavy mechanics field. Instruction is designed to develop knowledge, understanding, and skills essential to be in a position to receive on-the-job training by a future employer to become a highly specialized electronics technician. It is, by design, a balance of analog and digital training with emphasis on diagnosing and correcting system failures.

FRESHMAN YEAR

Electronics Service Technology and Electronics Technology have a common first year. Please see Electronics Technology for course descriptions for the freshman year.

SOPHOMORE YEAR

<table>
<thead>
<tr>
<th>Course</th>
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<tbody>
<tr>
<td>Adv. Electronics Laboratory ES 201-202</td>
<td>4</td>
</tr>
<tr>
<td>Intro to Computer Programming ES 204</td>
<td>2</td>
</tr>
<tr>
<td>Advanced Electronics Technology ES 255-256</td>
<td>4</td>
</tr>
<tr>
<td>Advanced Digital Electronics ES 271-272</td>
<td>4</td>
</tr>
<tr>
<td>Individual Study ES 275</td>
<td>2</td>
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<tr>
<td>Electives (Economics &amp; Industrial &amp; Human Relations)</td>
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<td><strong>TOTAL</strong></td>
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</table>

Course Offerings

ES - ELECTRONICS SERVICE TECHNOLOGY

ES 201-202 ADVANCED ELECTRONICS LAB (3-1-4). Experiments and troubleshooting exercises of advanced electronic circuits and systems covered in ES 255-256 (analog) and ES 271-272 (digital).

ES 294 INTRODUCTION TO COMPUTER PROGRAMMING (2-0-2). Introduces FORTRAN and BASIC programming principles and logic including input-output, flowcharting, handling arrays and subprograms, as applied to problem solving and required by the service industry.

ES 255 ADVANCED ELECTRONICS TECHNOLOGY I (4-1-4). Study of video circuits and systems, signal processing, alignment, and troubleshooting. PREREQ: ES 152.

ES 256 ADVANCED ELECTRONICS TECHNOLOGY II (4-1-4). Study of RF communications systems, including RF generation, amplification, modulation and multiplexing, radiation, and reception. PREREQ: ES 256.

ES 262 OCCUPATIONAL RELATIONS (3-0-3). Course is designed to enable a student to become skilled in dealing effectively with people and for applying, getting, maintaining and advancing in employment. Elective.

ES 263 SHOP MANAGEMENT (3-0-3). Study of shop management including methods of pricing, bookkeeping, and warranty reimbursement. Elective.

ES 271 ADVANCED DIGITAL ELECTRONICS I (4-1-4). Study of advanced digital circuits and systems including memory devices, basic microprocessor architecture and machine language programming. PREREQ: ES 152.

ES 272 ADVANCED DIGITAL ELECTRONICS II (4-1-4). Continuation of ES 271 leading into microprocessor interfacing and control of electro-mechanical systems with emphasis on troubleshooting. PREREQ: ES 271.

ES 296 INDIVIDUAL STUDY (2-2-2). Individualized program of study agreed upon by the student and a faculty member to aid in advancing in a specialty area; this could include but is not limited to FCC license or CET certificate preparation.

Heavy Duty Mechanics--Diesel

Eleven Month Program

Certificate of Completion

Instructors: Ted Brownfield, Ken Hogue

This program is designed to prepare students for entry level employment in the heavy mechanics field. Instruction will include the basics in design and fundamentals of operation of gasoline and diesel engines, heavy duty trucks, equipment and component parts. Instruction will be on mock-ups and actual working units.

SUBJECT                        Fall  Spring  Summer
Diesel Mechanics Basic DM 101 . . 19  19  19
Diesel Mechanics Intermediate I DM 104 . . 15  15  15
Occupational Relationships DM 262 . .  2  2  2
**TOTAL**                      19  19  15

Course Offerings

DM HEAVY DUTY MECHANICS--DIESEL

DM 101 DIESEL MECHANICS--BASIC (14-20-19)(F). This course covers shop safety practices, use and care of tools, use of measuring devices, service manuals, basic principles of diesel and heavy duty gasoline engines, transmission, power trains, cooling systems, diesel and gasoline engine fuel systems, electrical systems, suspension hydraulic and air brake, clutches, steering, and basic welding. Students must satisfactorily complete all theory and laboratory assignments and pass a final examination to progress to intermediate heavy duty mechanics.

DM 104 DIESEL MECHANICS INTERMEDIATE I (10-28-17)(S). The study and laboratory application of the design, construction, maintenance, and repair of diesel and heavy duty gasoline engines. Shop safety, care and use of special tools, welding, transmissions and power trains, cooling systems, fuel systems, clutches, steering electrical systems, suspension, hydraulic and air brakes will be studied. The theory will be applied in the lab. PREREQ: DM 101.

DM 105 DIESEL MECHANICS INTERMEDIATE II (8-28-15)(SU). Continuation of the study and application of DM 104. PREREQ: DM 104.

DM 262 OCCUPATIONAL RELATIONS (2-0-2). Course is designed to enable a student to become skilled in dealing effectively with people and for applying, getting, maintaining and advancing in employment. One semester course.

Horticulture Service Technician--Two Year Program

(Landscape Construction and Maintenance)

Associate of Applied Science Degree

Instructors: Gary Moen, Neldon Oyler

The objective of the Horticulture Program is to prepare students for employment in the Landscape, Nursery, Floral, Greenhouse, and Fruit and Vegetable industries. This includes the production, sale, and service areas of these major fields. The program stresses the design of landscapes, their interpretation and construction including costs, production of nursery plants, plant propagation, and landscape planting. Graduates of the Horticulture program qualify for positions in Nursery and Floral establishments as well as in Parks, Grounds, Maintenance, and Highway departments. They may also enter the fields associated with plant-propagation, nursery sales, greenhouse work and sales in the related fertilizer and insecticide fields.
Course Offerings

HO 101 HORTICULTURE LABORATORY (0-15-4). Applying the related theory and content to the solution of practical problems in horticulture. Specific areas of application include: preparing landscape drawings, making concrete, block, brick, stone, and wood structures, turf grass installation, and identification of trees and shrubs.

HO 102 HORTICULTURE LABORATORY (0-15-4). Applying the related theory and content to the solution of practical problems in horticulture. Specific areas of application include: preparing landscape drawings, making concrete, block, brick, stone, and wood structures, turf grass installation, and identification of trees and shrubs.

HO 103 HORTICULTURE THEOREY (7-0-7). Landscape maintenance. Plant identification and use. Landscape design, turf management, and shade tree identification and installation.

HO 104 HORTICULTURE THEOREY (7-0-7). Horticulture power machines and maintenance of tillers, mowers, shredders, construction design, nursery production, and garden center management.

HO 201 HORTICULTURE LABORATORY (0-15-4). Applying the related theory and content to the solution of practical problems in horticulture. Specific areas of application include: preparing landscape drawings, making concrete, block, brick, stone, and wood structures, turf grass installation, and identification of trees and shrubs.

HO 202 HORTICULTURE LABORATORY (0-15-4). Applying the related theory and content to the solution of practical problems in horticulture. Specific areas of application include: preparing landscape drawings, making concrete, block, brick, stone, and wood structures, turf grass installation, and identification of trees and shrubs.

HO 203 RELATED SCIENCE (2-0-2). Developing comprehension of the scientific principles utilized in: power equipment, lawn and shrub maintenance, and plant wounds, basic first aid.

HO 211 HORTICULTURE LABORATORY (0-15-4). Applying the related theory and content to the solution of practical problems in horticulture. Specific areas of application include: preparing landscape drawings, making concrete, block, brick, stone, and wood structures, turf grass installation, and identification of trees and shrubs.

HO 212 RELATED SCIENCE (2-0-2). Developing comprehension of the scientific principles utilized in: power equipment, lawn and shrub maintenance, and plant wounds, basic first aid.

HO 251 HORTICULTURE THEOREY (7-0-7). Landscape maintenance. Plant identification and use. Landscape design, turf management, and shade tree identification and installation.

HO 252 HORTICULTURE THEOREY (7-0-7). Horticulture power machines and maintenance of tillers, mowers, shredders, construction design, nursery production, and garden center management.

HO 262 OCCUPATIONAL RELATIONS (2-0-2). Course is designed to enable a student to become skilled in dealing effectively with people and for applying, getting, maintaining and advancing in employment. One semester course.

Horticulture Theory HO 151-152 . 7 7
TOTAL 19 19

HO 251 HORTICULTURE LABORATORY (0-15-4). Applying the related theory and content to the solution of practical problems in horticulture. Specific areas of application include: preparing landscape drawings, making concrete, block, brick, stone, and wood structures, turf grass installation, and identification of trees and shrubs.

HO 252 HORTICULTURE THEOREY (7-0-7). Horticulture power machines and maintenance of tillers, mowers, shredders, construction design, nursery production, and garden center management.

HO 262 OCCUPATIONAL RELATIONS (2-0-2). Course is designed to enable a student to become skilled in dealing effectively with people and for applying, getting, maintaining and advancing in employment. One semester course.

HO 271 INDIVIDUAL PROJECTS (3-0-3). Providing the opportunity for the student to apply all his prior education in planning, developing, and completing a unique, practical horticulture project.

Industrial Mechanics/Automation - Nine Month Program

Certificate of Completion

Instructor: Bob Allen

The Industrial Mechanics Program is designed to prepare technicians with entry level skills relevant to increasingly complex automated industrial environments.

Emphasis is on design, operation, maintenance, diagnosis and troubleshooting of modern systems as found in the workplace today. Preventive maintenance techniques and job safety are stressed.

SUBJECTS:

- Maintenance Welding Technology IM 101
- Maintenance Machine Fundamentals IM 102
- Electro-Mechanical Systems IM 110-111
- Basic Fluid Power Operations IM 121-122
- Industrial Mechanical Laboratory IM 131-132
- Industrial Technology Communications IM 162
- Occupational Relationships IM 262

TOTAL 16 16

Course Offerings

IM 101 MAINTENANCE WELDING TECHNOLOGY (3-0-3). Coverage includes oxyacetylene equipment, basic arc welding, and gas metal arc welding for maintenance. Use of special electrodes on ferrous and non-ferrous base metals is emphasized. Blueprint reading, shop math, equipment maintenance, and lay-out skills for modern manufacturing are included.

IM 102 MAINTENANCE MACHINE FUNDAMENTALS (3-0-3). This course combines use of basic hand tools with selected machine tools (lathe, milling machine, drill press, shaper, pipe/bolt machine) as are required to effectively service or repair increasingly sophisticated industrial devices. Preventive maintenance techniques utilizing this equipment are covered.

IM 110-111 ELECTRO-MECHANICAL SYSTEMS (3-0-3). This course covers basic electricity, electrical motor technology, controls, test meter usage, transmission of power via various drives, troubleshooting, and maintenance of these systems.

IM 121-122 BASIC FLUID POWER OPERATIONS (3-0-3). Hydraulics and Pneumatics: Complex automated manufacturing equipment requires a technician to be proficient in maintaining, repairing, and troubleshooting fluid power devices. This course provides basic exposure to fluid power systems of pumps, motors, valves, servo-valves, actuators, filtration, fluids, hydrostats, and accessories.

IM 131-132 INDUSTRIAL MECHANICAL LABORATORY (0-20-5). Laboratory experiences keyed to performance based objectives correlated with lecture topics are the basis for this course. Practical application of theory, maintenance, and safety are stressed.

IM 162 INDUSTRIAL TECHNOLOGY COMMUNICATIONS (2-0-2). Computer/numerical control literacy for the industrial technician. Instructions on using computer numerical control systems is given in the course. Demonstrations of programming and operating techniques given are the student for controlling/communicating with automated production equipment.

IM 262 OCCUPATIONAL RELATIONS (2-0-2). Course is designed to enable a student to become skilled in dealing effectively with people in an industrial environment. Communication and writing skills for applying for, obtaining, retaining and advancing in employment are offered.

Machine Shop - Two Year Program

Associate of Applied Science Degree

Instructor: Gas Glassen, Don Wertman

Boise State University offers a specialized Machine Shop program for students desiring to become machine tool operators. Students receive instruction in the set-up and use of all basic machines including engine lathes, milling machines, grinders, surfacing equipment, computer numerical control machines and bench work connected with them. Students will also learn about the many different materials and processes used by industry. They will receive classroom instruction
Course Offerings

MS MACHINE SHOP

MS 181-182 MACHINE SHOP LABORATORY (3-8-6). This sequence covers safety, shop practice, work habits, and production rates. Also included are the set-up and operation of lathes, milling machines, drill presses, power saws, grinders, surface grinders, the use of special attachments, bench work, layout, and computer numerical control machines.

MS 111 COMMUNICATION SKILLS (3-0-3)(F). An examination of interpersonal communication. Focuses on communication in life-long learning, on awareness of self, communicative relationships and written communications.

MS 124-125 RELATED BLUEPRINT READING (2-6-2)(4-6-4). This is concerned with the study of the principles and techniques of reading blueprints as applied to the machine shop. The sketching and drawing of actual shop projects will enable the student to better understand the techniques used in the reading of machine shop blueprints.

MS 132 BASIC MATH (2-0-2). A study of fractions, decimals, metric system and basic math processes such as addition, subtraction, division and multiplication as applied to the machine shop.

MS 151-152 MACHINE SHOP THEORY (3-0-3). Machining processes and their application as practiced in the laboratory course. Safety and sound work habits are emphasized in all phases of instruction. The set-up, care and maintenance of surface grinders, mills, lathes, CNC, drill presses and other machine tools.

MS 201-202 ADVANCED MACHINE SHOP LABORATORY (2-18-6). The set-up and operation involving manipulative development and increased skill in the use of lathes, milling machines, drill presses, power saws, tools and cutter grinder, surface grinder, heat treating, hardness testing, layout, inspection, and computer numerical control mill set-up, operation and programming. PREREQ: MS 102.

MS 221-222 BLUEPRINT READING AND LAYOUT FOR THE MACHINIST (2-0-2). Three dimensional drawing and hand sketching of mechanical devices and metric measures will be covered. PREREQ: MS 125.

MS 231-232 ADVANCED MATH (6-0-6). A study of trigonometry and geometry as applied to shop problems and the mathematics required for numerical control machining. A study of scientific principles required in the machinist trade is provided. PREREQ: MS 132.

MS 251-252 ADVANCED MACHINE SHOP THEORY (2-0-2). The composition of grinding wheels, metallurgy and heat treatment of metals. The programming of numerical controlled machines, as applied to the machinist. PREREQ: MS 152.

MS 262 OCCUPATIONAL RELATIONS (2-0-2)(F). An examination of occupational requirements. Focuses on job seeking skills, employer and employee relations, social security and workmen’s compensation laws, CPR, and first aid skills.

Marketing: Mid-Management, Two Year Program

Associate of Science Degree

Instructors: Richard Lange, Duston Scudder

1st 2nd

FRESHMAN YEAR

<table>
<thead>
<tr>
<th>Fall</th>
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<tbody>
<tr>
<td>English Composition E 101-102</td>
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</tr>
<tr>
<td>Introduction to Business GB 101</td>
<td>3 3</td>
</tr>
</tbody>
</table>

TOTAL 15 15

School of Vocational Technical Education

Math or Information-Decision Science Elective | 4
Sociology 101 | 3
Principles of Economics-Macro EC 201 | 3
Mid-Management Practicum MM 100 | 2 2
Elements of Management MM 105 | 3
Fundamentals of Speech Communication CM 111 | 3

TOTAL 17 15

SOPHOMORE YEAR

Consumer Marketing MM 201 | 3
Principles of Economics-Micro EC 202 | 3
Principles of Advertising MM 203 | 3
Report Writing MM 204 | 3
Intro Microcomputer Appl in Retailing MM 250 | 3
Retail Merchandising MM 204 | 3
General Psychology P 101 | 3
Mid-Management Practicum MM 100 | 2 2
Electives | 5 5

TOTAL 16 16

NOTE: The Marketing: Mid-Management program is also listed in this Catalog in the College of Business section.

Practical Nursing - Eleven Month Program

Certificate of Completion

Instructors: Melanie Bachtel, Wills Chaliff, Mary Dallas, Noreen Heist, Donna McCullough, Mary Towle

The Practical Nursing Program, in cooperation with three hospitals, a long term care facility and the State Board for Vocational Education, is approximately 11 months in length and consists of hospital and long term care nursing experiences and classroom instruction. A certificate is awarded upon graduation from the course. Students are then eligible to take the state licensing examination, which, if passed, qualifies them to practice as licensed practical nurses. The program is approved by the Idaho State Board of Nursing.

Classroom work includes instruction in the needs of individuals in health and in sickness, with emphasis on the practical nurses' part in meeting these needs.

Clinical experience consists of supervised hospital nursing experience in caring for patients with medically and surgically treated conditions, the care of sick children, new mothers and infants, rehabilitation and removont techniques in the care of the aged and long-term patient. Failure to meet requirements in either theory or clinical areas may result in termination from the program.

Admission Requirements

Entrance requirements: High school graduate or pass the General Educational Development Test. Satisfactory scores on the entrance test, which is given by Boise State University. A complete medical examination is required. The applicant will be interviewed by a committee. Thirty students will be selected for the Boise program, which begins in January; ten students will be selected for the Nampa program, and ten students will be selected for the Caldwell program, which begins in September.

The courses will be offered at various times during the eleven months depending upon the admission date and the availability of clinical experiences. This curriculum meets the requirements for hours and content for the Idaho State Board of Nursing.

A student must complete the following requirements to graduate from the program.

Professional Concepts PN 101 | 2
Anatomy and Physiology for Practical Nursing PN 102 | 7
Medical-Surgical Nursing PN 104 | 7
Nutrition and Diet Therapy PN 105 | 2
Emergency Nursing Concepts PN 106 | 7
Pharmacology for Practical Nursing PN 107 | 3
Pharmacology Clinical PN 108 | 1
Geriatric Nursing PN 109 | 1
Geriatric Clinical PN 110 | 1
Maternal and Infant Clinical PN 112 | 1
Pediatric Clinical PN 113 | 1
Pediatric Clinical PN 114 | 1
Fundamentals of Nursing PN 115 | 5
Clinical Foundations PN 115 | 3
Community Health and Microbiology PN 120 | 1
Medical-Surgical Nursing I PN 121 | 2
Medical-Surgical Nursing II PN 122 | 7
Course Offerings

PN PRACTICAL NURSING

PN 101 PROFESSIONAL CONCEPTS (2-0-2) F/S. Topics of study for Practical Nursing Professional Concepts will include job seeking skills, legal and ethical aspects and historical development of the field.

PN 102 ANATOMY AND PHYSIOLOGY FOR PRACTICAL NURSING (4-0-4). A study of the normal structure and function of the body cells, tissues, organs and systems, including the interrelationship of body systems.

PN 104 MEDICAL-SURGICAL NURSING CLINICAL (0-28-7). Clinical experience for PN 121-122.

PN 105 NUTRITION AND DIET THERAPY (2-0-2). An introduction to nutrition and identification of body nutritional needs in health and illness, including the study of diet therapy.

PN 106 EMERGENCY NURSING CONCEPTS (2-0-2). A study of assessment and immediate and temporary treatment of persons involved in accidents or other emergency situations.

PN 107 PHARMACOLOGY FOR PRACTICAL NURSING (3-0-3). A study of drug classification, modes of administration and principles of mathematics essential to drug administration.

PN 108 PHARMACOLOGY CLINICAL (0-4-1). Clinical experience for PN 107. PREREQ: PN 107.

PN 109 GERIATRIC NURSING (1-0-1). A study of the health needs and problems particular to the elderly patient.

PN 110 GERIATRIC CLINICAL (0-4-1). Clinical experience for PN 109. PREREQ: PN 109.

PN 112 MATERNAL AND INFANT CLINICAL (0-8-2). Clinical experience for PN 124. PREREQ: PN 124.

PN 113 PEDIATRIC CLINICAL (0-8-2). Clinical experience for PN 125. PREREQ: PN 125.

PN 114 FUNDAMENTALS OF NURSING (3-4-5). The student will develop skills in activities and procedures basic to patient care and includes medical terminology.

PN 115 CLINICAL FOUNDATIONS (0-12-3). Clinical experience for PN 114. PREREQ: PN 114.

PN 117 CLINICAL ELECTIVES (0-2-1). The student will obtain clinical experiences in specialty area as arranged by the instructor.

PN 118 PRACTICAL NURSING SPECIAL THEORY (V-V-1 to 10). Designed to provide the opportunity for study of a specific unit of theory. The topic offered will be selected on the basis of an evaluation of needs of individual. PREREQ: PERM/DEPT.

PN 119 PRACTICAL NURSING SPECIAL CLINICAL (V-V-1 to 10). Designed to provide the opportunity for specific clinical experience. The course offered will be selected on the basis of an evaluation of needs of individual. PREREQ: PERM/DEPT.

PN 120 COMMUNITY HEALTH AND MICROBIOLOGY (1-0-1). A study of the health needs of the individual, the family, the community and microbiology.

PN 121 MEDICAL AND SURGICAL NURSING I (8-0-8). A study of diseases and disorders of the body systems including planning, implementation and evaluation of nursing care.

PN 122 MEDICAL AND SURGICAL NURSING II (7-0-7). Continuation of the study of body systems and nursing care. PREREQ: PN 121.

PN 123 GROWTH AND DEVELOPMENT (1-0-1). A study of normal growth and development.

PN 124 MATERNAL AND INFANT HEALTH (2-0-2). A study of the obstetric patient and the neonate both in health and illness.

PN 125 PEDIATRIC NURSING (2-0-2). A study of health, diseases and disorders of children.

PN 126 MENTAL HEALTH AND MENTAL ILLNESS (2-0-2). A study designed to enable the student to become skilled in dealing effectively with people including mental health and the signs and symptoms of mental illness.

Course Offerings

Professional Truck Driving Program - Ten Week Program

Certificate of Completion

Instructor: Karl Christie

The Professional Truck Driving Program curriculum is designed to provide the students with the necessary skills and background for employment as an over-the-road student driver. This program is 10 weeks in length, 8 hours per day. Initially controlled driving will take place in non-traffic areas and advanced to open road, progressing from an empty to a loaded truck and trailer. The student will learn skills and procedures for handling freight, loading and unloading, dock loading, trailer combinations and their uses. Ample time will be given to familiarize the student with the problems of navigating large rigs in traffic and over the highway. ICC and Interstate rules and requirements will be covered including log keeping and accident procedures. A Certificate of Completion is issued upon satisfactory completion of the program. All students must meet the Department of Transportation's physical standards and have a Department of Motor Vehicles check.

SUBJECTS

Basic Operation TD 100 ........................................... 3
Safe Operating Procedures TD 105 ............................... 3
Advanced Operating Practice TD 110 .............................. 2
Vehicle Maintenance TD 115 ...................................... 4
Transportation Systems Management TD 120 ...................... 3
TOTAL ................................................................. 15

Course Offerings

TD 100 BASIC OPERATION (3-0-3) This course includes orientation to the program, introduces students to control systems, vehicle inspection, basic vehicle operation, shifting, backing, coupling and uncoupling, proficiency development, and introduction to required permits, log books and regulations.

TD 105 SAFE OPERATING PROCEDURES (2-4-3) This course includes classroom and lab instruction on principles of visual search, communications, speed management, space management, night operation, extreme driving conditions and proficiency development covering safe operating procedures.

TD 110 ADVANCED OPERATING PRACTICE (1-4-2) This course includes lab and classroom instruction on hazard perception, emergency maneuvers, skill control and recovery.

TD 115 VEHICLE MAINTENANCE (3-4-4) This course includes classroom and lab instruction on the function and operation of all key vehicle systems, preventive maintenance and vehicle servicing including checking engine fluids, changing fuses, checking tire inflation, changing tires, draining air tanks, adjusting brakes, and performing emergency repairs. Diagnosis and reporting of vehicle malfunctions will also be covered.

TD 120 TRANSPORTATION SYSTEMS MANAGEMENT (2-4-3) This course includes the lab and basic principles of handling freight, weight distribution, securing and covering cargo, cargo documentation, service requirements including permissible hours of duty, log keeping, accident procedures, personal health and safety, trip planning, public and employee relations.

Growth and Development PN 123 .................................. 1
Maternal and Infant Health PN 124 ................................ 2
Pediatric Nursing PN 125 ........................................... 2
Mental Health and Mental Illness PN 126 ......................... 2
TOTAL ................................................................. 58
**Refrigeration, Heating and Air Conditioning - Eleven Month Program**

Certificate of Completion  
Instructor: Walter Tucker

The Refrigeration, Heating and Air Conditioning Program offers laboratory experience, theory classes and related subjects, designed to prepare students for entry level employment. Emphasis will be on the servicing of commercial equipment and will cover all phases of skills and knowledge necessary to repair the equipment with a strong emphasis on safety.

<table>
<thead>
<tr>
<th>SUBJECTS</th>
<th>Fall</th>
<th>Spring</th>
<th>Summer</th>
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</thead>
<tbody>
<tr>
<td>Air Conditioning Lab</td>
<td>5</td>
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<td>3</td>
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<tr>
<td>Air Conditioning Theory</td>
<td>10</td>
<td>10</td>
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<tr>
<td>Occupational Relationships</td>
<td>2</td>
<td>-</td>
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<tr>
<td>TOTAL</td>
<td>17</td>
<td>15</td>
<td>7</td>
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</tbody>
</table>

**Course Offerings**

**RH AIR CONDITIONING, REFRIGERATION AND HEATING**

RH 121-122-123 AIR CONDITIONING, REFRIGERATION AND HEATING LABORATORY (2-0-5)(0-20-5)(0-26-3). These courses provide the laboratory application of principles covered in the theory class. Skills will be developed and practice will be provided which will be needed by the service person. Different phases of air conditioning, refrigeration, heating and cooling will be covered.

RH 141-142-143 AIR CONDITIONING, REFRIGERATION AND HEATING THEORY (10-0-10)(10-0-10)(10-0-4). This sequence of courses provides a basic understanding of the equipment and tools used on commercial equipment. Emphasis is on causes of break downs and the making of necessary repairs. Test equipment is used in the inspection of components such as relays, thermostats, motors and refrigerant lines.

**RH 262 OCCUPATIONAL RELATIONS (2-0-2)**. Course is designed to enable a student to become skilled in dealing effectively with people and for applying, securing, maintaining and advancing in employment.

**Small Engine Repair - Nine Month Program**

(Recreational Vehicles)  
Certificate of Completion  
Instructor: Jeff Schroeder

The Small Engine Repair Program will include classroom, math, and shop experiences directed to maintaining and repairing a variety of small engines. The instructional units will emphasize the complete repair of all types of small engine equipment.

<table>
<thead>
<tr>
<th>SUBJECTS</th>
<th>Fall</th>
<th>Spring</th>
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</thead>
<tbody>
<tr>
<td>Small Engine Laboratory</td>
<td>8</td>
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<tr>
<td>Small Engine Theory</td>
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<tr>
<td>Occupational Relationships</td>
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<td>-</td>
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<td>TOTAL</td>
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</tr>
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</table>

**Course Offerings**

**SE SMALL ENGINE REPAIR**

SE 101 SMALL ENGINE LABORATORY (0-32-8). Includes application and instruction in repair and overhaul of small engine units with emphasis on lawn and garden equipment.

SE 102 SMALL ENGINE LABORATORY (0-32-8). Repair and maintenance of recreational vehicles, motorcycles, snowmobiles and outboard marine engines.

SE 141 SMALL ENGINE THEORY (6-4-4). Provides a basic understanding of fundamentals in carburetion and electrical systems are covered.

SE 142 SMALL ENGINE THEORY (6-4-4). Includes instruction in power train, clutching, trouble shooting, fuel systems, tune-up, marine engines and chainsaws.

SE 262 OCCUPATIONAL RELATIONS (2-0-2). Course is designed to enable a student to become skilled in dealing effectively with people and for applying, getting, maintaining and advancing in employment. One semester course.

**Surgical Technology - Nine Month Program**

Certificate of Completion  
Instructor: Merle Curtis

The Surgical Technology Program is a competency based curriculum containing modules developed for individual student progress. Each of the classes contains modules complete with reading assignments, laboratory practice assignments and a written test to let the student know when mastery of the module has been accomplished. All modules must be successfully completed to qualify for a Certificate of Completion.

The student is required to be concurrently enrolled in Human Anatomy and Physiology Z 111, Z 112, and First Aid Core Block 1, or have recently completed those classes successfully (C or better.)

Classes begin Fall Semester only.

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<th>1st</th>
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<tbody>
<tr>
<td></td>
<td>SEM</td>
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<tr>
<td>ST 100 Introduction &amp; Basic Sciences</td>
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<tr>
<td>ST 101 Operating Room Techniques</td>
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<td>ST 102 Sterilization &amp; Disinfection</td>
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<tr>
<td>ST 110 Care of Surgical Patient</td>
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<tr>
<td>ST 111 Surgical Procedures</td>
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<tr>
<td>ST 131 Clinical Practice</td>
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<tr>
<td>ST 132 Advanced Clinical Practice</td>
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<tr>
<td>PE 121 Standard First Aid and CPR</td>
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<tr>
<td>Z 111 Anatomy and Physiology</td>
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<tr>
<td>Z 112 Anatomy and Physiology</td>
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<tr>
<td>TOTAL</td>
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</tbody>
</table>

**Course Offerings**

**ST SURGICAL TECHNOLOGY**

ST 100 INTRODUCTION AND BASIC SCIENCES (3-0-3). Includes modules: (1) The Health Care Team and its Language; (2) The Evolution of Asepsis; (3) Ethical Moral and Legal responsibilities; (4) The Operating Room Suite; (5) Principles of Asepsis; (6) Introduction to Pharmacology; (7) Introduction to Oncology; (8) Introduction to Treatment of Fractures; (9) Diagnostic Procedures.

ST 101 OPERATING ROOM TECHNIQUES (3-3-4). Includes modules: (1) Safety and Economy in the Operating Room; (2) Duties of the Scrub and Circulating Technician; (3) The Surgical Hand Scrub, Gowning and Gowning; (4) Draping Principles; (5) Sutures and Needles; (6) Sponges, Dressings, Drains, Care of Specimens; (7) Instruments and Special Equipment.

ST 102 STERILIZATION AND DISINFECTION (1-1-1-5). Includes modules: (1) Introduction to Microbiology - The Microbe; (2) Introduction to Microbiology - The Body’s Defenses; (3) Injury, Wound Healing and Hemostasis; (4) Infection - The Process, Prevention and Control; (5) Sterilization and Disinfection Methods.

ST 110 CARE OF THE SURGICAL PATIENT (3-3-4). Includes modules: (1) The Patient; (2) Preparation of the Surgical Patient; (3) Transportation of the Surgical Patient; (4) Positioning the Surgical Patient; (5) Anesthesia; (6) Recovery Room and Emergency Room Care.

ST 111 SURGICAL PROCEDURES (4-4-7-5). Modules: (1) General Surgical Procedures; (2) General Abdominal Procedures; (3) Obstructive and Gynecological Procedures; (4) Genitourinary and Transplant Surgery; (5) Plastic Surgery; (6) Ophthamologic Surgery; (7) Ear, Nose, Throat, Oral Surgery; (8) Neurosurgery; (9) Microsurgery; (10) Cardiovascular and Thoracic Surgery; (11) Pediatric and Geriatric Surgery; (12) Pediatric and Geriatric Surgery; Each of the modules includes a brief history, procedures, special considerations and the drugs used.

ST 131 CLINICAL PRACTICE (2-4-3-3). Includes patient care and beginning experience in the operating rooms, outpatient and central supply.

ST 132 ADVANCED CLINICAL PRACTICE (4-8-6-5). Includes advanced experience in surgery, scrubbing, and circulating. PREREQ: ST 131.

**Wastewater Technology - Eleven Month Program**

Certificate of Completion  
Instructor: Al Hodge

The Wastewater Technology Program is designed to prepare a student for employment as a new entry wastewater treatment plant operator. The program covers all phases of treatment plant operations, related math and sciences, maintenance, public relations,
The Welding Program provides the student with instruction, practical experience, and related theory in shielded metallic arc welding (FCAW), gas tungsten arc welding (GTAW), oxygen-acetylene (OAC) welding and brazing, plasma-arc cutting of ferrous and non-ferrous metals, and the use of carbon arc cutting equipment. The first 9 months will be basic to intermediate welding. The summer session will be of a two-tract design. First, the design will permit students who need more to satisfy requirements on performance-based objectives for the basic portion of the program: and second, to permit the advanced students to further their skills, and to concentrate in more technical areas.

The program is designed to produce skilled workers in the areas of welding and blueprint interpretation as well as layout and fitting. The student will do all the work based upon performance-based objectives. Students will utilize all tools and equipment in their trade with a continual emphasis on safety.

**Course Offerings**

**W WASTEWATER TECHNOLOGY**

**WW 103 WASTEWATER BIO-CHEM LAB I (3-0-5)**. Introduction to standard laboratory equipment, safety procedures, and practices. Some basic wastewater testing will be performed.

**WW 104 WASTEWATER MECHANICAL LAB I (3-0-5)**. Introduction to, and use of hand tools, power tools, bench mounted tools, presses, etc. Nomenclature of the various types of pumps, blowers, air compressors, clarifiers, and other machinery used in wastewater treatment. Field trips to the various types of wastewater treatment facilities will be made at the beginning. As individual treatment units are discussed, field trips will be made to inspect that unit only.

**WW 105 IN PLANT PRACTICUM (3-0-3)**. Supervised experience in area wastewater facilities. Students gain experience in all phases of wastewater treatment in a variety of facilities and with several processes.

**WW 106 WASTEWATER MECHANICAL LAB II (3-0-5)**. Hands-on assembly and disassembly of the various pieces of machinery used in wastewater treatment. Installation of packing and mechanical seals in pumps and valves. Basic oxygen-acetylene and arc welding. Reading blueprints and schematics. Learning basic skills of pipefitting. Field trips to surrounding industrial wastewater treatment facilities will be made.

**WW 107 WASTEWATER BIO-CHEM LAB II (3-0-5)**. Continuation of laboratory procedures. Standardization of chemicals and testing apparatus. Maintenance of lab equipment. Chemistry mathematics dealing with the normalizing of solutions, balancing reaction equations, etc. Testing procedures required for the various methods of activated sludge process control, as well as tests required for N.P.D.E.S. permit reporting will be performed. Procedure and logic for research testing will be introduced.

**WW 111 WASTEWATER MATHEMATICS I (3-0-3)**. A review of basic arithmetic: addition, subtraction, multiplication of whole numbers, fractions, and decimals. The use of percentages, ratios, and proportions, and average numbers. Calculation of length, area and volume of various shapes of containers. Calculation of low rates, velocity, force, pressure and hydraulic heads. Calculations relating to those treatment processes covered in WW 151.

**WW 112 WASTEWATER MATHEMATICS II (3-0-3)**. Intermediate mathematics covering algebra, chemistry calculations, geometric means, logarithms, electrical circuitry, horsepower calculations, etc.

**WW 151 WASTEWATER TREATMENT PLANT OPERATIONS (3-0-3)**. Introduction to wastewater treatment plant operations, including collection systems, pre-treatment, primary sedimentation, aerobic and anaerobic digester operations. Related math, communication skills and chemistry.

**WW 152 WASTEWATER TREATMENT PLANT OPERATIONS II (3-0-3)**. Secondary treatment processes including trickling filters, aerobic biological filter, rotating biological contractors, oxidation ditches, with heavy emphasis on activated sludge process control. Plant process interaction, report writing, budget preparation and finance, and related first aid and safety.

**WW 262 OCCUPATIONAL RELATIONSHIPS (0-20-3)**. Course is designed to enable a student to become skilled in dealing effectively with people and for applying, getting, maintaining and advancing in employment. One semester course.

**WELDING**

**W 101-102 WELDING LABORATORY (3-0-3)**. The basic to intermediate portion of this program includes electric arc (SMAW) with mild and low alloy steel electrodes, oxygen-acetylene (OA) welding and brazing, metallic inert gas (MIG) welding, oxygen-acetylene cutting of steel, and the use of carbon arc equipment.

**W 103 WELDING LECTURE/LABORATORY (3-0-3)**. Basic students to continue on track and for advanced students to work into TIG, PIPE and qualification tests. Further emphasis on blueprint analysis, properties of materials, and safe operating procedures is given.

**W 111 WELDING COMMUNICATIONS (3-0-3)**. An examination of interpersonal communication. Focuses on communication in life-long learning, awareness of self, communicative relationships and written communications.

**W 121-122 BLUEPRINT READING AND LAYOUT (3-0-3)**. Fall semester will include blueprint, basics of structural steel layout and fitting procedures. Spring semester will include advanced structural steel and basic plate drawing including field assembly plans and related math.

**W 151-152 WELDING THEORY (4-0-4)**. The theory for the program covers all areas as related to the lab portion as well as material identification, material strength, forming methods, cast iron, material rigging and handling, and all aspects of safety.

**W 262 OCCUPATIONAL RELATIONSHIPS (2-0-2)**. An examination of occupational requirements. Focuses on job seeking skills, employee and employer relations, social security and workers' compensation laws, C.P.R. and First Aid.

**Welding and Metals Fabrication - Eleven Month Program**

**Certificate of Completion**

**Instructor: Ron Balder**

The Welding Program provides the student with instruction, practical experience, and related theory in shielded metallic arc welding (SMAW), gas metal arc welding (GMAW)(MIG), flux cored arc welding (FCAW), gas tungsten arc welding (GTAW)(TIG)(Heli-Arc), oxygen-acetylene burn (OA) manual, semi-automatic, and automatic burn, as well as (OA) brazing and welding, plasma-arc cutting of ferrous and non-ferrous metals, and the use of carbon arc cutting equipment. The first 9 months will be basic to intermediate welding. The summer session will be of a two-tract design. First, the design will permit students who need more to satisfy requirements on performance-based objectives for the basic portion of the program: and second, to permit the advanced students to further their skills, and to concentrate in more technical areas.

The program is designed to produce skilled workers in the areas of welding and blueprint interpretation as well as layout and fitting. The student will do all the work based upon performance-based objectives. Students will utilize all tools and equipment in their trade with a continual emphasis on safety.
### Boise State University Faculty

#### Full-Time Official Faculty as of February, 1987

**NOTE:** The date in parentheses is the year of first appointment.

<table>
<thead>
<tr>
<th>Name</th>
<th>Title/Department</th>
<th>University/Institution</th>
<th>Date of Appointment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ackley Louise</td>
<td>Assistant Professor, English</td>
<td>M.A., University of Washington</td>
<td>(1969)</td>
</tr>
<tr>
<td>Affleck Stephen B</td>
<td>Associate Professor, Engineering</td>
<td>Ph.D., Iowa State University</td>
<td>(1981)</td>
</tr>
<tr>
<td>Allen John W</td>
<td>Professor, Physics</td>
<td>Ph.D., Harvard University</td>
<td>(1971)</td>
</tr>
<tr>
<td>Anderson Jeffrey M</td>
<td>Director, Clinical Education, Respiratory Therapy; Instructor, Respiratory Therapy; B.S., University of Wisconsin Madison</td>
<td>(1986)</td>
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<tr>
<td>Anderson Robert</td>
<td>Professor, Mathematics</td>
<td>Ph.D., Michigan State University</td>
<td>(1970)</td>
</tr>
<tr>
<td>Aramburri Gary</td>
<td>Manager, Technical Division</td>
<td>Senior Instructor, Welding; Diploma, Boise State University</td>
<td>(1976)</td>
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<tr>
<td>Ashworth Lonny J</td>
<td>Associate Professor, Medical Laboratory Therapy; M.S., College of Idaho</td>
<td>(1977)</td>
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<td>Atkinson Philip</td>
<td>Assistant Professor, Theatre Arts</td>
<td>M.A., State University of New York</td>
<td>(1985)</td>
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<td>Ayers Kathleen L</td>
<td>Assistant Professor, Mathematics</td>
<td>Ph.D., University of Idaho</td>
<td>(1983)</td>
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<td>Baicher Melanie</td>
<td>Instructor, Practical Nursing; B.S.N., Cal State, Chico</td>
<td>(1983)</td>
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<td>Bain Craig E</td>
<td>Assistant Professor, Accounting</td>
<td>Ph.D., Texas A &amp; M</td>
<td>(1986)</td>
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<td>Baker Charles W</td>
<td>Professor, Biology</td>
<td>Ph.D., Oregon State University</td>
<td>(1968)</td>
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<td>Baker Elizabeth</td>
<td>Associate Professor, Mathematics</td>
<td></td>
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<td>Baker Richard P</td>
<td>Professor, Sociology</td>
<td>Ph.D., Washington State University</td>
<td>(1973)</td>
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<td>Baldassarre Joseph A</td>
<td>Associate Professor, Music; D.M.A., Case Western Reserve University</td>
<td>(1975)</td>
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<td>Baltizer Ronald</td>
<td>Senior Instructor, Welding; M.S., University of Idaho</td>
<td>(1978)</td>
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<td>Baldwin John B</td>
<td>Professor, Music; Ph.D., Michigan State University</td>
<td>(1971)</td>
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<td>Ball Richard</td>
<td>Professor, Mathematics</td>
<td>Ph.D., University of Wisconsin</td>
<td>(1974)</td>
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<td>Banks Richard C</td>
<td>Associate Professor, Organic Chemistry</td>
<td>Ph.D., Oregon State University</td>
<td>(1968)</td>
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<td>Barney Lloyd Dwayne</td>
<td>Assistant Professor, Economics</td>
<td>Ph.D., Texas A &amp; M</td>
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<td>Barrett Gwynn W</td>
<td>Professor, History</td>
<td>Ph.D., Brigham Young University</td>
<td>(1968)</td>
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<td>Barness Wylla D</td>
<td>Professor, Psychology</td>
<td>Ph.D., University of Minnesota</td>
<td>(1968)</td>
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<td>Barton Charles Kayburn</td>
<td>Acting Chief Academic Officer, State Board of Education; Associate Professor, Political Science; Ph.D., University of Alabama</td>
<td>(1981)</td>
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<td>Basham Marc Joseph H</td>
<td>Assistant Professor, Teacher Education; Ed.D., University of Idaho</td>
<td>(1983)</td>
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<td>Becker Allen</td>
<td>Associate Professor, Biology</td>
<td>Ph.D., Washington State University</td>
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<td>Assistant Professor, Music; M.A., Ball State University</td>
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<td>Benson Elmo B</td>
<td>Associate Professor, Art; Ed.D., University of Idaho</td>
<td>(1975)</td>
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<td>Bentley Elton B</td>
<td>Associate Professor, Geology, Geophysics</td>
<td>Ph.D., University of Oregon</td>
<td>(1980)</td>
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<td>Benton Danny</td>
<td>Instructor, Drafting Technology; B.S., La Salle Extension University</td>
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<td>Assistant Professor, Music; D.M.A., University of Wisconsin Madison</td>
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<td>Bieder J Patrick</td>
<td>Professor, Teacher Education</td>
<td>Ed.D., University of Idaho</td>
<td>(1969)</td>
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<td>Bixby Michael</td>
<td>Associate Professor, Management; J.D., University of Michigan</td>
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<td>Associate Professor, Sociology; Ph.D., University of Colorado</td>
<td>(1983)</td>
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<td>Blankenship Jim</td>
<td>Professor; Art; M.F.A., Otis Art Institute</td>
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<td>Bledsoe Cristy M</td>
<td>Instructor, Nursing</td>
<td>M.S., University of Colorado, Boulder</td>
<td>(1985)</td>
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<td>Boren Robert R</td>
<td>Chairperson, Communication Department; Professor, Communication; Ph.D., Purdue University</td>
<td>(1971)</td>
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<td>Bounds Karen J</td>
<td>Associate Professor, Office Occupations; Ed.D., North Texas State University</td>
<td>(1973)</td>
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<td>Bower Dale K</td>
<td>Professor, English</td>
<td>Ph.D., University of Missouri</td>
<td>(1968)</td>
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<td>Bratt J Walls</td>
<td>Associate Professor, Music; M.M., University of Utah</td>
<td>(1970)</td>
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<td>Breder Susan I</td>
<td>Professor, Computer Systems</td>
<td>Ph.D., University of Iowa</td>
<td>(1969)</td>
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<td>Brinton Alan F</td>
<td>Professor, Philosophy</td>
<td>Ph.D., University of Minnesota</td>
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<td>Brown Timmy</td>
<td>University Librarian; Associate Professor; M.S., University of Illinois</td>
<td>(1977)</td>
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<td>Brownfield Theodore E</td>
<td>Advanced Instructor (Diesel)</td>
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<td>Brudenell Ingrid</td>
<td>Assistant Professor, Nursing</td>
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<td>Buhler Peter</td>
<td>Associate Professor, History; Ph.D., University of California, San Diego</td>
<td>(1980)</td>
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<td>Bullington Richard F</td>
<td>Executive Vice President; Professor, Education; Ed.D., University of Alabama</td>
<td>(1968)</td>
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<td>Burmaster Orvis</td>
<td>Associate Professor, English</td>
<td>M.A., University of Montana</td>
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<td>Buss Stephen R</td>
<td>Chairperson, Theatre Arts Department; Associate Professor, Theatre Arts; Ph.D., Washington State University</td>
<td>(1979)</td>
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<td>Butler Doris A</td>
<td>Standard Instructor, Business &amp; Office Education; Diploma, Boise State University</td>
<td>(1980)</td>
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<td>Butterfield Patricia</td>
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<td>M.S.N., University of Colorado, Boulder</td>
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<td>Button Sherman G</td>
<td>Professor, Physical Education</td>
<td>Ph.D., University of Utah</td>
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<td>Capell Harvey J</td>
<td>Assistant Professor, Decision Sciences, Computer Systems; M.B.A., Northwestern University</td>
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<td>Associate Professor, Chemistry</td>
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<td>Carpenter Connie</td>
<td>Manager, CHS Learning Resource Center; Assistant Professor, Nursing; Manager, CHS Learning Resource Center; Assistant Professor, Nursing</td>
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<td>Carter Loren S</td>
<td>Professor, Chemistry</td>
<td>Ph.D., Washington State University</td>
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<td>Professor, Psychology</td>
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<td>Christensen James L</td>
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<td>(1970)</td>
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<td>Clark Marvin A</td>
<td>Professor, Business Education; D., University of Minnesota</td>
<td>(1969)</td>
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<td>Cocotis Marvin A</td>
<td>Associate Professor, English; M.A., Reed College</td>
<td>(1972)</td>
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<td>Cocotis Marvin A</td>
<td>Associate Professor, English; M.A., Reed College</td>
<td>(1972)</td>
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</tbody>
</table>
Faculty

Colby Conrad ........................................... (1970)
  Chairperson, Respiratory Therapy/Med Record Sci; Associate
  Professor, Respiratory Therapy, Medical Records; Director, Respira-
  tory Therapy; Ph.D., University of Montana
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  Assistant Professor, Sociology; Th.M., Iliff School of Theology
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  Program Head, Practical Nursing; Senior Instructor, Practical Nursing;
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Dalton Jack ............................................ (1958)
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Davis Charlie R .......................................... (1963)
  Chairperson, English Department; Professor, English; Ph.D., University
  of North Carolina
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  University
Dodson Jerry ........................................... (1970)
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Dorman Pat ............................................ (1967)
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Douglas Dorothy ....................................... (1981)
  Associate Professor, Biology; Ph.D., University of Calif, Berkeley
Douglas J Jr ........................................... (1972)
  Associate Professor, Art; M.F.A., Cranbrook Academy of Art
Downs Richard ........................................... (1975)
  Counseling Psychologist, Counseling & Testing Center; Associate
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Dykstra Dewey J ........................................... (1981)
  Assistant Professor, Physics; Ph.D., University of Texas Austin
Eastman Phillip ......................................... (1977)
  Professor, Mathematics; Ph.D., University of Texas
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  Science, M.S., Ph.D., Washington State University
Edmundson Phyllis ..................................... (1974)
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Ellison Patt ............................................ (1986)
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  B.S., Texas Women's University
Elliott Catherine ...................................... (1986)
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Elliott Wilber D ........................................... (1969)
  Chairperson, Music Department; Professor, Music; M.E., Central
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Ellis Robert W ........................................... (1971)
  Professor, Biochemistry; Ph.D., Oregon State University
Ericson Robert E ........................................... (1970)
  Associate Professor, Theatre Arts; Ph.D., University of Oregon
Evett Stuart D ........................................... (1972)
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F

Fahleson Genger ........................................... (1974)
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  Wyoming
Ferguson David J ........................................... (1970)
  Associate Professor, Mathematics; Ph.D., University of Idaho
Fletcher Allan W ........................................... (1970)
  Professor, History; Ph.D., University of Washington
Foraker-Thompson Jane ..................................... (1982)
  Associate Professor, Criminal Justice Administration; Ph.D., Uni-
  versity of Calif, Berkeley
Fountain Carol E ........................................... (1967)
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Fox Roy F ............................................. (1978)
  Coordinator, Composition, English Department; Associate Professor,
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Franklin Alan .............................................. (1984)
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French Judith .............................................. (1976)
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Friedl Robert L ........................................... (1972)
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Fritschman II H K ........................................... (1954)
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  Teacher Education; Ed.D., Texas A & I University
Fuller Eugene G .......................................... (1967)
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Gabert Marvin C ........................................... (1979)
  Associate Professor, Construction Management; M.A., Stanford
  University
Gaines Martin ............................................. (1980)
  Instructor, Agricultural Equipment Tech;
Gallup V Lyman ........................................... (1977)
  Associate Professor, Decision Sciences; Ph.D., University of Oregon
Ganym Henderson ........................................... (1974)
  Associate Professor, Finance; Ph.D., University of Utah
Gill Edward K ............................................. (1982)
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Gillespie S ............................................. (1985)
  Catalog Librarian, Catalog Dept, Library; Assistant Professor,
  Classen Gustav B ........................................... (1979)
  Instructor, Machine Shop; Certif, Mergenthaler Linotype Co
Glover J ................................................. (1982)
  Associate Professor, Management; Ph.D., Case Western Reserve
  University
Gourley Margaret ........................................... (1978)
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  of Wooster
  Assistant Professor, Mathematics; Ph.D., University of Colorado
Greenfield Robin ........................................... (1986)
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Griffin John ............................................ (1983)
  Associate Professor, Mathematics; Ph.D., Washington State
  University
Groebner David F ........................................... (1973)
  Professor, Decision Sciences; Ph.D., University of Utah
Guerin Michael ........................................... (1986)
  Assistant Professor, Teacher Education; Ph.D., University of Idaho
Guilford Charles ........................................... (1981)
  Associate Professor, English; Ph.D., Northern Illinois University
I

Haacke Don P (1971)
Hadden James (1972)
Hambelton Benjamin E (1975)
Hansen Ralph W (1979)
Harbison Warren (1977)
Heise Frank K (1971)
Heist Noreen (1984)
Herrig Linda (1982)
Hibbs Robert A (1965)
Hill Kenneth L (1968)
Hodge Albert L (1986)
Hoges Wernher W K (1986)
Hollenbaugh Ken (1968)
Huang Kenneth A (1979)
Huskey Daniel L (1968)
Huskey Elly (1971)
Hyde Kenneth A (1979)

J

Jacob Edward G (1973)
Refer to the document for full names and positions.
## Faculty

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<tr>
<th>Last Name</th>
<th>First Name</th>
<th>Title</th>
<th>Department</th>
<th>Institution</th>
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<tr>
<td>Leon</td>
<td>Manuel</td>
<td>Associate Professor, Psychology; Ph.D.</td>
<td>Psychology</td>
<td>University of Calif, San Diego</td>
<td>1985</td>
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<tr>
<td>Lester</td>
<td>Jody</td>
<td>Instructor</td>
<td>Respiratory Therapy;</td>
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<td>1983</td>
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<td>Lewis</td>
<td>Ray</td>
<td>Associate Professor</td>
<td>Physical Education;</td>
<td>University of Idaho</td>
<td>1973</td>
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<td>Lichtenstein</td>
<td>Peter M</td>
<td>Professor, Economics</td>
<td></td>
<td>University of Colorado</td>
<td>1975</td>
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<td>Lincoln</td>
<td>Douglas J</td>
<td>Professor, Marketing</td>
<td></td>
<td>Virginia Poly Inst &amp; State Univ</td>
<td>1980</td>
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<td>Lingenfelter</td>
<td>Joan</td>
<td>Program Head, Child Services/Management; Senior Instructor, Child Services/Management;</td>
<td></td>
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<td>Lojek</td>
<td>Helen</td>
<td>Assistant Professor</td>
<td>English</td>
<td>Iowa State University</td>
<td>1983</td>
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<td>Long</td>
<td>James A</td>
<td>Associate Chairperson, Community &amp; Environmental Health; Associate Professor, Nutrition; M.S.; Iowa State University</td>
<td></td>
<td></td>
<td>1974</td>
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<td>Lovin</td>
<td>Hugh T</td>
<td>Professor, History</td>
<td></td>
<td>University of Washington</td>
<td>1965</td>
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<tr>
<td>Luke</td>
<td>Robert A</td>
<td>Chairperson, Physics &amp; Engineering Department; Professor, Physics; Ph.D.; Utah State University</td>
<td></td>
<td></td>
<td>1968</td>
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<tr>
<td>Lundy</td>
<td>Phoebe J</td>
<td>Associate Professor</td>
<td>History</td>
<td>Drake University</td>
<td>1966</td>
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<tr>
<td>Lynch</td>
<td>Donna</td>
<td>Associate Professor, Nursing; M.S.</td>
<td></td>
<td>University of Colorado</td>
<td>1979</td>
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<td>Lyons</td>
<td>Lamont S</td>
<td>Associate Dean, College of Education; Associate Professor, Teacher Education; Ed.D., University of Massachusetts</td>
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<tr>
<td>MacNinis</td>
<td>Jean</td>
<td>Senior Instructor, Dental Assisting;</td>
<td></td>
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<td>1962</td>
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<td>Madden</td>
<td>Jerry</td>
<td>Reference Librarian, Reference Dept, Library; Instructor, Library Science; M.L.S.; University of Washington</td>
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<td>1983</td>
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<td>Maguire</td>
<td>James</td>
<td>Associate Professor</td>
<td>English</td>
<td>Indiana University</td>
<td>1970</td>
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<td>Maloof</td>
<td>Giles</td>
<td>Professor</td>
<td>Mathematics</td>
<td>Oregon State University</td>
<td>1968</td>
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<td>Mansfield</td>
<td>Darwin</td>
<td>Acting Chairperson, Diet, Nutrition &amp; Finance; Professor, Business Communication; Ed.D., Brigham Young University</td>
<td></td>
<td></td>
<td>1970</td>
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<tr>
<td>Martin</td>
<td>Carol A</td>
<td>Professor, English</td>
<td></td>
<td>Catholic University of America</td>
<td>1972</td>
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<td>Mason</td>
<td>Jon I</td>
<td>Assistant Professor, Construction Management; M.B.A., Univ of Santa Clara</td>
<td></td>
<td></td>
<td>1983</td>
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<tr>
<td>Matjeka</td>
<td>Anne L</td>
<td>Head Librarian, Curriculum Resource Ctr, Library; Assistant Professor, Library Science; M.L.S.; State University of New York Albany</td>
<td></td>
<td></td>
<td>1981</td>
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<td>Matjeka</td>
<td>Edward R</td>
<td>Professor</td>
<td>Organic Chemistry</td>
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<td>1976</td>
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<tr>
<td>Mason</td>
<td>Constance</td>
<td>Associate Professor, Nutrition; M.Ed.</td>
<td></td>
<td></td>
<td>1968</td>
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<tr>
<td>Mason</td>
<td>Emerson C</td>
<td>Chairperson, Computer Systems &amp; Decision Sciences; Associate Professor, Computer Systems; D.B.A., Texas Tech University</td>
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<td>McCain</td>
<td>Gary</td>
<td>Associate Professor, Marketing</td>
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<td>McCloskey</td>
<td>Richard</td>
<td>Associate Professor, Marketing</td>
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<td>McCorkle</td>
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<td>Associate Professor, Communication</td>
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<td>1978</td>
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<td>McCullough</td>
<td>Donna</td>
<td>Instructor</td>
<td>Radiologic Sciences; M.S., Whitworth College</td>
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<td>Donna</td>
<td>Instructor, Practical Nursing</td>
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<td>1985</td>
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<td>McGrath</td>
<td>Neill Brian</td>
<td>Associate Professor, Economics</td>
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<td>McGuire</td>
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<td>McKee</td>
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Change of course numbers and course descriptions for N 100, 102, 200, 202. Page 125.


RADIOLOGIC SCIENCES PAGE 130-132.
Changes in Radiologic Sciences Curriculum. Pages 130, 131, 132. ........................................ 19

RESPIRATORY THERAPY PAGES 132-133. .......................................................... 21
Change departmental designation, course number and description for RT 207 to H 206. Pages 133, 122. ............... 21

MASTER OF BUSINESS ADMINISTRATION PAGES 137-138. ............. 21
Creation of new MBA elective course GB 545. Page 137 ....... 21

MASTER OF ARTS IN EDUCATION PAGES 138-146. .............................. 21
Creation of Master of Science in Education, Instructional Technology emphasis. Page 140. .......................... 21

MASTER OF SCIENCE IN EXERCISE AND SPORT STUDIES PAGE 146. 23
Creation of new Master of Science in Exercise and Sport Studies. Page 146. ........................................... 23
Delete PE 521 and PE 594. Page 141. ................................. 25

BUSINESS AND OFFICE EDUCATION PAGE 155-157. ............................... 25
Reorganization of Business and Office Education program. Page 155, 156, 157. ........................................... 25
Deletion of OF 205 Advanced Shorthand. .......................... 25

CHILD CARE SERVICES/MANAGEMENT PAGE 157-158. ...................... 28
Revision of Child Services/Management Program. Page 157, 158. 28
Creation of CC 161. Page 157, 158. .................................................. 28
Change of prerequisite for CC 261. Page 157, 158. .............. 29
Deletion of CC 231. Page 157. .......................................................... 29

DRAFTING TECHNOLOGY PAGE 160-161. .................................................. 29
Change in major requirements for Drafting. Page 160, 161. 29

ELECTRICAL LINELINERWORKER PAGE 161. ............................................. 31
Revision of Electrical Lineworker program. Page 161. ........... 31

ELECTRONICS SERVICE TECHNOLOGY PAGE 163. ................................. 31
Revision of Electronics Service Technology Program. Page 163. 31

HEAVY DUTY MECHANICS-DIESEL PAGE 163. ......................................... 35
Revision of Heavy Duty Mechanics-Diesel program. Page 163. 35

REFRIGERATION, HEATING AND AIR CONDITIONING PAGE 167. 37
Deletion of RH 123, 143, change to 9 month program. Page 167. 37
ACADEMIC ENRICHMENT AND SPECIAL PROGRAMS

INTERDISCIPLINARY STUDIES IN AGING. PAGE 28 PRECEDING RELIGIOUS INTEREST COURSES.

Students have the opportunity to earn a Minor in Gerontology through a structured, upper division, interdisciplinary studies program. Courses provide students from any major an opportunity to become knowledgeable about the biological, psychological, and sociological aspects of the aging process. Additionally, required coursework provides students an excellent understanding about health and aging as well as the social utilities and personal services necessary for the older person.

Requirements for Minor in Gerontology

LOWER DIVISION REQUIREMENTS:
* Intro to Sociology SO 101 ........................................ 3
* General Psychology P 101 ......................................... 3
* Concepts of Biology
  OR ........................................................................ 4
  Concepts Human Anat & Phys Z 107
  OR ........................................................................ 8
  * Human Anatomy & Physiology Z 111-112 ................... 8
  TOTAL 10-14

UPPER DIVISION REQUIREMENTS:
  Sociology of Aging SO 325 ........................................... 3
  Psychology of Aging P 313 .......................................... 3
  Biology of Aging B 300 .............................................. 3
  ** Health and Aging H 410 ......................................... 3
  ** Soc Util & Pers Serv for Elderly SW 433 ................. 3
  Seminar and/or Practicum in Major Fld Study ............... 6
  TOTAL 21

* Lower Division required courses meet core requirements. ** Prerequisites are SO 325, P 313, B 300 or PERM/INST.
ART DEPARTMENT PAGES 39-42.

MISSING ART DEPARTMENT COURSE DESCRIPTIONS, PAGES 40, 41, 42.

AR 115 LANDSCAPE PAINTING (0-6-3-)(SU). Various styles and techniques in landscape painting in oil, watercolor and related media. Field trips. First Summer Session.

AR 231 SCULPTURE (0-4-2)(F). Work in a variety of three dimensional material with emphasis on the techniques of carving, modeling.

AR 232 SCULPTURE (0-4-2)(S). Continued work in a variety of three dimensional materials with emphasis on the techniques of carving, modeling and mold building.

AR 251 INTRODUCTION TO CREATIVE PHOTOGRAPHY (2-2-2)(F/S). An aesthetic approach to the basic photographic skills of camera operation, film development and enlargement of negatives. All work in black and white. Adjustable camera required.

AR 252 HISTORY OF PHOTOGRAPHY (3-0-3)(S). This course is designed to provide a basic understanding of both the technical and visual history of photography. Through slide presentations, important photographers of the 19th and 20th centuries will be discussed in terms of their role in the development of photography as an art form.

AR 319 PORTRAIT AND FIGURE PAINTING (0-6-3)(F/S). Painting from models in realistic or semi-abstract styles based on individual interest. Model fee. May be repeated for credit, PREREQ: AR 219 and Upper Division status.

AR 321 ELEMENTARY SCHOOL ART METHODS (2-2-3)(F/S). For students expecting to teach in the elementary schools. This course is especially designed to help prospective teachers construct outlines of courses for creative art activities in the elementary grades. Progressive methods and materials conducive to free and spontaneous expression are stressed.

AR 325 STUDIO IN CERAMICS (0-6-3)(F/S). Advanced study in the materials of ceramics with emphasis on the exploration of clays, glazes, and firing as it applies to the creative artist or teacher. Advisable to take AR 225 and 226 prior to AR 325. Individual instruction will be given. May be repeated once for credit.

AR 441 STUDIO IN CREATIVE PHOTOGRAPHY (2-4-3)(F/S). Individual problems in black and white photography. Advisable to take AR 251 and AR 341. May be repeated for credit.

BIOLOGY DEPARTMENT PAGES 43-44.
CREATION OF NEW COURSE B 300. PAGE 43.

B 300 BIOLOGY OF AGING (3-0-3) (S). Focus on biological aspects of aging and the major types of anatomical and physiological processes which may impair normal functioning during the aging process. This course is not appropriate for Biology majors and may not be counted toward major requirements. Offered alternate years. PREREQ: Upper division standing and B 100 or Z 111-112.

CHEMISTRY DEPARTMENT PAGES 45-46.


C 321, 322 PHYSICAL CHEMISTRY LECTURE (3-0-3) (F/S). The fall semester will cover gases, phase equilibria, electrochemistry, adsorption spectroscopy, and the first, second and third laws of thermodynamics. The spring semester covers reaction kinetics, point symmetry, molecular structure and quantum theory (briefly). PREREQ: PH 102 or PH 213 and 214, M 206 or equivalent, prior or concurrent enrollment in C 317 or PERM/INST.

C 411G INSTRUMENTAL ANALYSIS (2-6-4) (S). Theory and practice of the more common instrumental methods of analysis, laboratory experience with commercial instruments. PREREQ: C 211 and C 322.

C 432G BIOCHEMISTRY LABORATORY (0-3-1) (S). Identification, isolation, and reactions of biologically important compounds. PREREQ: C 431.


COURSE CHANGES FOR EN 215, 216. PAGE 48.

EN 215 BASIC SURVEYING (1-3-2) (F). A basic course in surveying for non-engineering majors. Course covers use of transit, level, plane table, and computations related to elevation, traverse and stadia surveys. PREREQ: M 11 or equivalent.

EN 216 ENGINEERING MEASUREMENTS (2-3-3) (S). Theory and practice; manipulation of instruments for horizontal and vertical distance measurements and angle measurements; types and distribution of errors; route and land surveying; construction surveying; introduction to photogrammetry. PREREQ: M 111 or equivalent.
NEW MAJOR PROGRAM - BACHELOR OF SCIENCE, MATHEMATICS, COMPUTER SCIENCE OPTION. PAGE 56.

FRESHMEN YEAR

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SENIOR YEAR

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CHANGE OF PREREQUISITE FOR CS 358. PAGE 57.

CS 358 DATA STRUCTURES (4-9-4)(S). The representation of data, lists, stacks, queues, storage mapping, tree structures, hierarchic data struc-
tuples, recursion, searching and sorting, codes, data structures in programming languages. PREREQ: CS 127 or PERM/INST.

CREATION OF CS 453 OPERATING SYSTEMS PRINCIPLES. PAGE 57.


MUSIC PAGES 58-63

DELETE MAXIMUM CREDITS EARNED IN MUSIC ENSEMBLE COURSES. PAGE 62.

Courses Affected:
ME 101, 301 University Singers
ME 105, 305 Meistersingers
ME 110, 310 Vocal Ensemble
ME 115, 315 Opera Theatre
ME 120, 320 Band
ME 125, 325 Brass Ensemble
ME 126, 326 Jazz Ensemble
ME 130, 330 Woodwind Ensemble
ME 140, 340 Percussion Ensemble
ME 141, 341 Keyboard Percussion Ensemble
ME 150, 350 Orchestra
ME 160, 360 String Ensemble
ME 167, 367 Guitar Ensemble
ME 180, 380 Accompanying
ME 185, 385 Duo-Piano Ensemble

CHANGE OF PREREQUISITE FOR MU 313-314. PAGE 62

(Only the prerequisite to be changed:) PREREQ: MU 120-122 and a grade of 'C' or better in MU 213 Functional Piano, OR Piano Proficiency passed, OR 200-level private piano study.

MILITARY SCIENCE PAGES 74-75.
COURSE TITLE AND DESCRIPTION CHANGE FOR ML 202. PAGE 75.

ML 202 Applied Leadership (2-1-2). Prepares the student for the ROTC advanced course. ML 202 concentrates on developing oral communication skills, problem analysis, decision making and practical leadership exercises as outlined by Military Qualification Skills (MQS I) /Leadership Assessment Program (LAP) guidelines. The student will acquire a general knowledge and appreciation of the historical development of the American Military System and its leaders. Laboratory consists of progressive participation in leadership exercises, adventure training, military skills orientation, and historical examples of these events. (By permission of Instructor.)

SOCIAL WORK PAGES 79-80.

CREATION OF NEW COURSE SW 433. PAGE 79.

SW 433 SOCIAL UTILITIES AND PERSONAL SERVICES FOR THE ELDERLY (3-0-3) (S). This course includes policy issues and services that are or should be available to all aged, and special services that must be available for the frail, impaired, and isolated aged. Content survey includes the Social Security Act, the Older American Act and its amendments, the programs and benefits including cash income support programs and non-cash income support programs, housing, and occupational programs. Agencies and organizations will also be covered, as well as social services - eligibility and utilization. PREREQ: SO 325, P 313, B 300 or PERM/INST.

SOCIOLOGY, ANTHROPOLOGY AND CRIMINAL JUSTICE ADMINISTRATION PAGES 80-85.

ADD SO 210 TO LIST OF CORE COURSES FOR CRIMINAL JUSTICE MAJORS. PAGES 80, 81, 83.

Core Courses
One of the following:
- Computer Appl in Social Science SO 210 ......................... 3
- Intro to Financial Accounting AC 205 .......................... 3
- Intro to Information Science IS 210 .......................... 3

ACCOUNTING PAGES 87-89.
CHANGE COURSE NUMBER AND PREREQUISITE FOR AC 401. PAGE 88.

AC 302 PRINCIPLES OF INCOME TAXATION (3-0-3)(F/S). Theory and application of Federal income taxes to individuals, including an introduction to F.I.C.A., unemployment taxes, and state income taxes. Degree credit not allowed for both AC 320 and AC 302. PREREQ: AC 206.

COMPUTER SYSTEMS & DECISION SCIENCES PAGE 89-90.

ADDITION OF OPTIONS FOR COMPUTER INFORMATION SYSTEMS MAJOR. PAGE 89.

COMPUTER INFORMATION SYSTEMS MAJOR
Bachelor of Business Administration Degree
Option I: PROGRAMMER ANALYST

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*Approved electives for the Programmer Analyst Option are:

1. IS 370 Advanced Business Applications Programming (COBOL).
2. IS 455 Decision Support Systems.
3. One approved elective from Computer Science Curriculum:
   a. CS 122 First Course in Programming (BASIC).
   b. CS 125 PASCAL Programming.
   c. CS 227 Programming in 'C' in the UNIX Environment.
   d. Others decided by consultation with advisor.

**COMPUTER INFORMATION SYSTEMS MAJOR**
Bachelor of Business Administration Degree
Option II: INFORMATION ANALYST

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Upper Division Economics Elective ................................... - 3
TOTAL 19 15

SENIOR
Organizational Behavior MG 401 .................................. - 3
Nonprocedural and 4th-Generation Lang IS 415 ............... - 3
Data Files and Databases IS 367 ................................. 3 -
Systems Analysis and Design IS 420 ............................. 3 -
Systems Development Project IS 430 ............................ - 3
Business Policies GB 450 ........................................... - 3
General Electives (Area I, II, III) ............................... 3 3
*Option Electives .................................................. 3 3
TOTAL 15 15

*Approved electives for the Information Analyst Option are:
1. IS 305 Advanced Office Systems.
2. AS 338 Technical Writing for Business.
4. Others decided by consultation with advisor.

COURSE TITLE CHANGE FOR IS 210 INTRO TO INFORMATION SCIENCE. PAGE 90.

IS 210 INTRODUCTION TO COMPUTER INFORMATION SYSTEMS (3-0-3)(F/S). Course description remains the same.

CREATION OF NEW COURSE IS 215. PAGE 90.

IS 215 MICROCOMPUTER APPLICATIONS IN BUSINESS (3-0-3)(F/S). The course will survey the application of microcomputers to business information needs. Significant hands-on use of microcomputers will be included. This course will be required of CIS majors. PREREQ: IS 210 or equivalent.

CHANGE OF COURSE NUMBER, TITLE AND CONTENT FOR IS 220 TO IS 221. PAGE 90.

IS 221 INTRODUCTION TO BUSINESS APPLICATIONS PROGRAMMING (COBOL) (3-0-3)(F/S). An introduction to computer programming in a business environment. Emphasis on the fundamentals of structured program design, development, testing, implementation, and documentation of common business-oriented applications using COBOL. Discussion and application of top-down design strategies and structured programming techniques. PREREQ: IS 210 Intro to Computer Information Systems.
CHANGE OF COURSE NUMBER, TITLE AND CONTENT OF AS 317 TO IS 305. PAGE 96, 90.


IS 305 ADVANCED OFFICE SYSTEMS (3-0-3)(F). Introduction to the area of information management and functions of office management including areas such as production, environmental analysis, systems analysis and personnel administration. PREREQ: Upper Division Business standing or PERM/INST.

CHANGE OF COURSE NUMBER, TITLE AND CONTENT OF IS 360 TO IS 361. PAGE 90.

Delete IS 360. Page 90.

IS 361 INTERMEDIATE BUSINESS APPLICATIONS PROGRAMMING (COBOL) (3-0-3) (F/S). Intermediate COBOL programming in a business environment. Emphasis on structured methodology of program design, implementation, and documentation of business-oriented applications. Includes table processing, sequential file creation and access, input editing, and random access files. Processing techniques and development of programs and systems of programs for batch and interactive environments using advanced features. PREREQ: Upper Division Business standing, IS 221 Introduction to Business Applications Programming (COBOL).

CHANGE OF COURSE TITLE AND DESCRIPTION OF IS 370. PAGE 90.


CHANGE OF COURSE NUMBER, TITLE AND PREREQUISITE OF IS 405 TO IS 367. PAGE 90.

Delete IS 405. Page 90.

CREATION OF A NEW COURSE IS 415. PAGE 90

IS 415 NONPROCEDURAL AND FOURTH-GENERATION LANGUAGES (3-0-3)(F). The course examines the principles of development of Computer Information Systems through use of nonprocedural and fourth-generation languages. It will explore state-of-the-art design techniques appropriate to those languages. Students will learn to recognize the advantages and disadvantages of each family of tools for the major CIS application areas. Languages used in illustration are respectively, RPGIII or SQL in ORACLE as nonprocedural languages, and POWERHOUSE as a fourth-generation language. PREREQ: Upper Division Business standing, IS 367 Data Files and Databases.

CHANGE OF PREREQUISITE FOR IS 420. PAGE 90.


CHANGE OF COURSE TITLE FOR IS 430. PAGE 90.

IS 430 SYSTEMS DEVELOPMENT PROJECT (3-0-3)(S).

CREATION OF A NEW COURSE IS 455. PAGE 90.

IS 455 DECISION SUPPORT SYSTEMS (3-0-3)(S). The course will survey tools and techniques for applying state-of-the-art decision models and software in computerized information systems supporting managerial decision making. This senior-level course will have a seminar format, with emphasis on intensive individual or small group learning projects. PREREQ: Upper Division Business standing, IS 361 Intermediate Business Applications Programming (COBOL).

COMBINE "PRODUCTION MANAGEMENT" AND "QUANTITATIVE MANAGEMENT" MAJORS INTO A "DECISION SCIENCES" MAJOR. PAGES 89, 90.

DECISION SCIENCE MAJOR* - MAJOR CODE NUMBER: 0530

FRESHMAN
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<td>Statistical Techniques I-II DS 207-208</td>
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<td>Programming Techniques IS 220</td>
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*This is a suggested sequence of courses for the BBA degree only. Those seeking the BA or BS will be required to take additional courses. Changes in elective timing may have to be made to accommodate specific areas of emphasis.

**If M 105-106 is taken students must get a 3.50 or they will have to take M 111-204 also.

**Electives selected from option areas and non-business courses. Be aware that 16 credits must be taken outside the College of Business.

**Suggested options:
2. Finance: FI 410-411, FI 420 and FI 450.
3. Economics: EC 303, EC 305 and EC 421-422.

Students will also be strongly advised to sit for at least part of either the APICS certification examination or the ASPM certification examination while in their senior year. Receiving either certification would enhance a student's marketability.

CREATION OF NEW COURSE DS 307 SAMPLING TECHNIQUES. PAGE 90.

DS 307 SAMPLING TECHNIQUES (3-0-3)(F). The theory and application of probability sampling techniques are presented. Typical topics include: simple random sampling, stratified sampling, cluster sampling, systematic sampling, multistage sampling, double sampling, sampling errors, ratio and regression estimators, and nonresponse problems. PREREQ: DS 208.

MANAGEMENT PAGES 93-95.

CREATION OF NEW COURSE GB 445. PAGE 95.

GB 445 INTERNATIONAL BUSINESS (3-0-3)(F). An overview of (1) the international business environment; (2) country characteristics and conditions affecting firms that conduct business overseas; and (3) firm level decisions about marketing, finance and personnel, and other functions.

HEALTH, PHYSICAL EDUCATION AND RECREATION PAGES 99-104.

DELETE 'G' DESIGNATION FOR PE 401G AND PE 402G. PAGES 102, 141.

Delete 'G' designation for: PE 401G PSYCHO/SOCIAL ASPECTS OF ACTIVITY. PE 402G ADVANCED ATHLETIC TRAINING.
MINIMUM GRADE REQUIREMENTS FOR PSYCHOLOGY MAJORS. PAGE 104, 105.

Point number 4 under Special Information for Students (in Psychology) should read:

"Every psychology course that is specifically required for the baccalaureate degree in psychology must be passed with a grade of "C" or better in order to qualify a student for that degree."

The present point number 4 should become point number 5.

CREATION OF NEW COURSE P 125. PAGE 105.

P 125 BRAIN, MIND AND BEHAVIOR (1-0-1)(F). An educational television series with accompanying textbook, the eight one-hour programs focus on the mysteries of consciousness, vision and movement, pain, anxiety and behavior, memory, the relationship between thought and language, schizophrenia, and implications of brain research for the future. Examinations will be administered through the mail.

CREATION OF NEW COURSE P 313 PSYCHOLOGY OF AGING. PAGE 106.

P 313 PSYCHOLOGY OF AGING (3-0-3)(S). Course will examine functional changes occurring during the aging process with respect to cognition and sensory perception. There will also be presentations on the major current mental health problems among the population over age 65.

CREATION OF COURSE DESCRIPTION FOR P 493 INTERNSHIP IN PSYCHOLOGY. PAGE 106.

P 493 INTERNSHIP IN PSYCHOLOGY (Variable Credit). Some internship experiences are available through the department. Credit may be granted for psychological activities in applied settings. PREREQ: upper-division standing, psychology major, cumulative GPA above 3.00 and PERM/INST.
CREATION OF COURSE DESCRIPTION FOR P 496 INDEPENDENT STUDY IN PSYCHOLOGY. PAGE 106.

P 496 INDEPENDENT STUDY IN PSYCHOLOGY (Variable Credit). Independent Study is an opportunity to earn academic credit outside of the established curriculum. It assumes the confluence of two streams of interest—that of a student and that of a professor. Thus, enrollment is contingent on a voluntary commitment to the project by both parties. PREREQ: upper-division standing, psychology major, cumulative GPA above 3.00, and PERM/INST.

COMMUNITY AND ENVIRONMENTAL HEALTH PAGE 120-123.

CHANGE OF DEGREE REQUIREMENTS FOR ENVIRONMENTAL HEALTH. PAGE 121.

2. Professional Requirements:
   Mathematics M 111 and M 120 ........................................... 9

CREATION OF NEW COURSE H 410. PAGE 123.

H 410 HEALTH AND AGING (3-0-3)(F). Course will focus on major health problems and issues of the elderly. It will include discussion of: 1) the continuity of care for the older person; 2) the organizations and personnel providing care; and 3) the agencies involved with licensure, certification, or other types of regulations for care providers. The course will also include some discussion of non-traditional health centers for the older persons, e.g., worksite, community social organizations, and senior centers. PREREQ: SO 325, P 313, B 300 or PERM/INST.

MEDICAL RECORD SCIENCE PAGE 123-124.

CHANGE IN CURRICULUM FOR MEDICAL RECORD SCIENCE. PAGE 123

Delete IS 210 Intro Information Science and CS 122 First Course in Programming from program and ADD H 120 Intro to Computers in Health Science 2 credits.

MEDICAL RECORD SCIENCE
ASSOCIATE OF SCIENCE DEGREE

BOISE STATE UNIVERSITY CATALOG 1987-88 Edition Addendum 15
FIRST YEAR

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<td>Medical Records II MR 203-204</td>
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<td>Health Record Transcription MR 209</td>
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SUMMER

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NURSING PAGE 125-126.

DIFFERENTIATE AND SEPARATE NURSING COURSES OFFERED BY EACH OF THE NURSING PROGRAMS. PAGE 124, 125, 126.

NA  Associate of Science in Nursing
NB  Bachelor of Science in Nursing, Registered Nurses
NU  Bachelor of Science in Nursing, Generic

The following courses will be classified as NA:

NA 100  Fundamentals of Nursing I
NA 102  Fundamentals of Nursing II
NA 114  Orientation to Associate degree Nursing for Advanced Placement.
NA 200  Nursing Interventions I
NA 202  Nursing Interventions II

The following courses will be classified as NB:

NB 302  Professional Nursing I
NB 308  Leadership and Professional Interactions
NB 309  Practicum: Leadership and Professional Interactions
NB 322  Nursing Roles in Promoting Group Health
NB 323  Practicum: Nursing Roles in Promoting Group Health
The following courses will be classified as NU:

NU 204 Introduction to Nursing Process
NU 206 Foundations of Nursing
NU 207 Foundations of Nursing Lab
NU 314 Concepts of Nursing I
NU 315 Concepts of Nursing I Lab
NU 318 Concepts of Nursing II
NU 319 Concepts of Nursing II Lab
NU 412 Community Health Nursing
NU 413 Community Health Nursing Lab
NU 416 Psychosocial Nursing
NU 417 Psychosocial Nursing Lab
NU 434 Legal/Ethical Issues and Trends
NU 436 Nursing Leadership
NU 437 Nursing Leadership Lab
NU 456 Nursing Strategies in High Risk Childbearing Families
NU 470 Principles and Practices of School Nursing
NU 472 Nursing Care of the Adult in the Workplace
NU 478 Nursing and Politics

CHANGE OF COURSE NUMBERS AND COURSE DESCRIPTIONS FOR N 100, 102, 200, 202. PAGE 125.

NA 100 FUNDAMENTALS OF NURSING (3-9-6)(F). First of four sequential courses. Focuses on man's growth and development level, well-being, environmental interaction and ability to cope with stress. Learning experiences increase student knowledge of self and others. Nursing process and psychomotor skills are introduced to assist individuals of all ages to cope with change and to progress toward wellness. PREREQ: Admission to AS program.

NA 102 FUNDAMENTALS OF NURSING II (3-12-7)(S). Builds upon concepts presented in NA 100. Focuses on concepts and methods to assist individuals and families adaptation to stressors of illness and surgery. Learning experiences assist student to implement nursing process and
further develop psychomotor skills to help individuals of all ages progress toward wellness. PREREQ: NA 100.

NA 200 NURSING INTERVENTION I (4-15-9)(F). Develop concepts presented in first year courses. Focuses on coping with changes in biopsychosocial health status of individuals and families from pre-natal through late adulthood. Learning experiences utilize the nursing process to provide care for patients with complex health problems. PREREQ: NA 100.

NA 202 NURSING INTERVENTION II (4-18-10)(S). Continues development of concepts acquired in previous courses. Focuses on development of self directed, flexible and organized use of nursing process in providing care for individuals of all ages. Learning experiences emphasize patient education, psychodynamics and management of multiple patient with complex problems. PREREQ: NA 100 and B 205.


Delete N 328 Family and Group Interactions, N 329 Practicum: Family and Group Interactions, N 362 Health Illness II and N 363 Practicum: Health Illness II.

ADD NEW COURSES:

NB 322 NURSING ROLES IN PROMOTING GROUP HEALTH (2-0-2)(S). Analysis of group health based on concepts from systems, developmental, and interactional frameworks in a variety of settings. Emphases on levels of prevention and nursing roles in health promotion. PREREQ: NB 308. PREREQ or COREQ: NB 308. COREQ: NB 323.

NB 323 PRACTICUM: NURSING ROLES IN PROMOTION GROUP HEALTH (0-3-1)(S). Practicum for NB 322. COREQ: NB 322.


RADIOLOGIC SCIENCES PAGE 130-132.
CHANGES IN RADIOLOGIC SCIENCES CURRICULUM.  PAGES 130, 131, 132.

1. Delete IS 210 from major and replace with H 120.
2. Delete H 405, 406 from major requirements.
3. Delete RD 401, RD 402, RD 436 from major requirements.
5. Change of credit hours for RD 234.
6. Change of credit hours for RD 316.
7. Change of credit hours for RD 350.
8. Change of Credit hours and course description for RD 360.
10. Change of course #, descript. and prereq. for RD 408 to RD 340.
11. Add H 206 to major requirements.
12. Add MG 305 to major requirements.
13. Add RD 338 to major requirements.

FRESHMAN YEAR

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BOISE STATE UNIVERSITY CATALOG 1987-88 Edition Addendum 19
Rad Positioning IV RD 320 ................................................. - 2
***Area I Core Elective ................................................. 3 3
TOTAL .................................................................................. 17 18

SUMMER
Clinical Experience RD 397 ................................................. 5 -

SENIOR
***Health Delivery Systems H 202 ........................................ 3 -
Mgmt & Organ Theory MG 301 ............................................. 3 -
Area I Core Elective ......................................................... 3 -
Area II Core Elective ....................................................... 3 -
Organizational Behavior MG 401 ........................................ 3 -
***Personnel Administration MG 305 ................................... 3 -
***Develop of Rad Depart RD 400 ....................................... 3 -
***Elective from list below * ................................................ 3 3
TOTAL .................................................................................. 15 15

* Suggested Electives

Business Ethics & Social Responsibilities GB 360 (3-0-3) (F).
Employee and Labor Relations MG 340 (3-0-3) (F/S).
Technical Writing E 202 (3-0-3) (F/S).
Interviewing CM 307 (3-0-3).
Statistics (Health Sciences, Education or Psychology).

***Areas of Change.


RD 227 RADIOGRAPHIC TECHNIQUE & CONTROL LABORATORY (0-2-1)(F). A laboratory experience where students apply the principles of x-ray machine operation and practical application of all image materials. COREQ: RD 226.

RD 234 INTRODUCTION TO RADIOGRAPHY CLINICAL EXPERIENCE (2-0-2)(F). Change of credit hours only.

RD 316 RADIOGRAPHIC POSITIONING (3-0-3)(F). Change of credit hours only.

RD 350 MEDICAL AND SURGICAL DISEASES (2-0-2)(F). Change of credit hours only.

RD 360 SPECIAL RADIOGRAPHIC PROCEDURES (2-0-2)(F). Fundamental concepts of the more specialized radiographic examinations with emphasis on studies of the cardiac and circulatory systems. Other special procedures will be discussed. PREREQ: RD major or PERM/INST.

RD 400 DEVELOPMENT OF A RADIOLOGY DEPARTMENT (3-0-3)(S). Change of title and semester offered.

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RD 338 RADIOLOGIC THERAPY AND IMAGING SYSTEMS (3-0-3)(S). Analysis of new radiologic imaging systems to include sonography, nuclear medicine, computerized tomography, and magnetic resonance imaging. Therapeutic uses of radiation and cross-sectional anatomy will also be considered. PREREQ: Upper division majors only or permission of instructor.

RESPIRATORY THERAPY PAGES 132-133.

CHANGE DEPARTMENTAL DESIGNATION, COURSE NUMBER AND DESCRIPTION FOR RT 207 TO H 206. PAGES 133, 122.

H 206 NURSING SKILLS FOR HEALTH CARE PERSONNEL (1-0-1)(F). Nursing arts as they pertain to individuals working in a health care setting, to include collecting patient vital signs, body positioning and mechanics, medical and surgical asepsis, and medication preparation. PREREQ: PERM/INST.

MASTER OF BUSINESS ADMINISTRATION PAGES 137-138.

CREATION OF NEW MBA ELECTIVE COURSE GB 545. PAGE 137

GB 545 INTERNATIONAL BUSINESS (3-0-3)(F). An overview of (1) the international business environment; (2) country characteristics and conditions affecting firms that conduct business overseas; and (3) firm level decisions about marketing, finance and personnel, and other functions.

MASTER OF ARTS IN EDUCATION PAGES 138-146.

CREATION OF MASTER OF SCIENCE IN EDUCATION, INSTRUCTIONAL TECHNOLOGY EMPHASIS. PAGE 140.

INSTRUCTIONAL DESIGN COMPONENT 15 CREDITS
Required of everyone.

1. TE 582 Instructional Theory ........................................ 3
2. TE 537 Instructional Design ........................................ 3

BOISE STATE UNIVERSITY CATALOG 1987-88 Edition Addendum 21
3. TE 551 Fundamentals of Educational Research .................. 3
4. TE 591 Project or TE 593 Thesis ............................... 6

TECHNICAL COMPONENT 12 CREDITS

5. Student must take one of the following two courses:
   TE 538 Instructional Courseware Design
   OR .................................................. 3
   TE 539 Artificial Intelligence Applications
6. TE 583 Selected Topics-Instructional Technology .................. 3
7. TE 520 Video Delivery Systems .................................. 3
8. TE 590 Practicum .............................................. 3

ENVIRONMENT COMPONENT 3 CREDITS

Students are to take at least one class in this component. Suggestions:

Organ Theory & Behavior MG 528 .................................. 3
Accounting for Managers AC 511 .................................. 3
Communication Tech for Managers AS 512 ....................... 3
Human Resource Management MG 541 ............................ 3
Public Policy Form & Implem PA 520 ............................... 3
Conflict & Change in Socio-cult Systems SO 510 ..................... 3
Curriculum Plan & Implementation TE 581 ....................... 3
Free Elective .................................................... 3
TOTAL .............................................. 33

TE 520 VIDEO DELIVERY SYSTEMS (3-0-3)(Demand) Students will investigate the video and audio applications of technology for instruction such as Instructional Television Fixed Service (ITFS), teleconferences, and educational television.

TE 537 INSTRUCTIONAL DESIGN (3-0-3)(F/S). This course will enable students to identify instructional needs, determine and organize content, select appropriate media, and devise evaluation and revision cycles.

TE 538 INSTRUCTIONAL COURSEWARE DESIGN (3-0-3)(F). Students will design instruction with the assistance of a microcomputer and link the instruction with video technology. Students will investigate several authoring languages to facilitate the development and delivery of instruction.

TE 539 ARTIFICIAL INTELLIGENCE APPLICATION (3-0-3)(S). Students will investigate instructional technology in the creation of knowledge based systems as a method of instruction. Students will create instructional programs using expert systems and artificial intelligence.

TE 551 FUNDAMENTALS OF EDUCATIONAL RESEARCH (3-0-3)(F/S/SU). Change of semesters only.

TE 582 INSTRUCTIONAL THEORY (3-0-3)(F/S/SU). This course includes investigations of research and theory about educational contexts, motivation, learning and development as they relate to models of instruction. Students will develop skills in selecting appropriate instructional models to achieve specific purposes in a variety of educational settings.

TE 583 SELECTED TOPICS-INSTRUCTIONAL TECHNOLOGY (3-0-3)(Demand) The students will explore issues and applications of technologies of current interest. Seminar content will be revised continually to reflect current developments in instructional technologies.

MASTER OF SCIENCE IN EXERCISE AND SPORT STUDIES PAGE 146.

CREATION OF NEW MASTER OF SCIENCE IN EXERCISE AND SPORT STUDIES. PAGE 146.

Proposed starting date of FALL 1988.

<table>
<thead>
<tr>
<th>CORE REQUIREMENTS</th>
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<tbody>
<tr>
<td>Functional Anatomy PE 500</td>
<td>3</td>
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<tr>
<td>Physiology of Activity PE 510</td>
<td>3</td>
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<tr>
<td>Biomechanics PE 520</td>
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<tr>
<td>Psychology of Exercise &amp; Sport PE 530</td>
<td>3</td>
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<tr>
<td>Applied Prin of Conditioning PE 540</td>
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<tr>
<th>RESEARCH TOOLS</th>
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<tr>
<td>Advanced Statistical Methods P 405g</td>
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<tr>
<td>Business Statistics DS 513</td>
<td>3</td>
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<tr>
<td>Fund of Educational Research TE 551</td>
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<tr>
<th>ELECTIVES</th>
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<tbody>
<tr>
<td>Exercise Physiology Lab PE 515</td>
<td>3</td>
</tr>
<tr>
<td>Mechanical Anal of Motor Act PE 515</td>
<td>3</td>
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<tr>
<td>Sociology of Exercise &amp; Sport PE 535</td>
<td>3</td>
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<tr>
<td>Exercise Testing &amp; Prescription PE 545</td>
<td>3</td>
</tr>
<tr>
<td>Philosophy of Exercise &amp; Sport PE 550</td>
<td>3</td>
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<tr>
<td>Motor Learning PE 560</td>
<td>3</td>
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<tr>
<td>Health Promotion PE 570</td>
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<tr>
<td>Computers in Exercise and Sport PE 575</td>
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<td>Practicum PE 590</td>
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<tr>
<th>THESIS OPTION</th>
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<tr>
<td>Research &amp; Thesis PE 593</td>
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<tr>
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<td>Project PE 591</td>
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**TOTAL** **33**

BOISE STATE UNIVERSITY CATALOG 1987-88 Edition Addendum 23
PE 500 FUNCTIONAL ANATOMY (3-0-3). A study of gross human anatomy from the descriptive approach with emphasis on the skeletal, muscular, nervous and circulatory systems. Includes cadaver dissection. In addition, in-depth study of joint structure and function, gross-motor-movement, and skill analysis will be included. Video analysis will be utilized.

PE 510 PSYCHOLOGY OF ACTIVITY (3-0-3). A study of the various factors affecting human performance and subsequent adaptations of the body to single and repeated bouts of exercise.

PE 520 BIOMECHANICS (3-0-3). A study of the internal and external forces acting on the human body and the effects produced by these forces. Analysis of movement will focus on qualitative techniques.

PE 530 PSYCHOLOGY OF EXERCISE AND SPORT (3-0-3). A study of psychological factors as they relate to exercise, sport and performance. Content includes personality traits, motivation, anxiety/arousal, and intervention/coping strategies.


PE 515 EXERCISE PHYSIOLOGY LAB (2-2-3). Practical applications of the principles that govern response and adaptation of the human body to exercise, utilizing laboratory equipment to collect data and analyze results.

PE 525 MECHANICAL ANALYSIS OF MOTOR ACTIVITIES (3-0-3). An introduction to the analysis techniques used to study the mechanics of human motion. Topics will include cinematography, videography, force transducers, electromyography, and computer analysis techniques.

PE 535 SOCIOLOGY OF EXERCISE AND SPORT (3-0-3). A study of the relationships between exercise, sport and other facets of society, including social organization, group behavior and social interaction patterns.

PE 545 EXERCISE TESTING AND PRESCRIPTION (2-2-3). A study of the current methods and procedures used in coronary heart disease risk detection and reduction, including the recommended guidelines by the American College of Sports Medicine for exercise testing and prescription.

PE 550 PHILOSOPHY OF EXERCISE AND SPORT (3-0-3). A study of the philosophical foundations underlying exercise and sport. Topics include the six pillars of philosophy, values, development, design and evaluation of individual and program philosophy, and goal structuring.

PE 560 MOTOR LEARNING (3-0-3). A study of the relevant empirical evidence and research in the field of motor learning and performance, including the learning process, feedback, timing, information processing, transfer, perception, motivation, and practice conditions.
PE 570 HEALTH PROMOTION (3-0-3). An introduction to health promotion in the commercial/industrial sector, including planning, development, and implementation of programs aimed at the achievement of total well-being.

PE 575 COMPUTERS IN EXERCISE AND SPORT (3-0-3). An introduction to computer applications in the exercise and sport sciences, including methods for collecting data using the computer. Processing of data will include both microcomputer software and the Statistical Analysis System (SAS) package.

PE 590 PRACTICUM (0-9-3). Available on a selective, limited basis. Culminating experience designed to provide students with an opportunity to apply skills learned in the classroom. PREREQ: PERM/INST.

PE 591 PROJECT (3 credits). Students select a project related to Exercise and Sport Studies and pursue it to a logical conclusion. PREREQ: PERM/INST.

PE 593 RESEARCH AND THESIS (6 credits). A scholarly paper containing the results of original research. PREREQ: Admission to candidacy and approval of the student's graduate committee.

PE 596 DIRECTED RESEARCH (variable credits). Opportunity for the student to pursue a topic of interest on an individual basis.

DELETE PE 521 AND PE 594. PAGE 141.

Delete PE 521 Elementary Physical Education Activities and PE 594 Physical Education in Special Education.

BUSINESS AND OFFICE EDUCATION PAGE 155-157.

REORGANIZATION OF BUSINESS AND OFFICE EDUCATION PROGRAM. PAGE 155, 156, 157.

DELETION OF OF 205 ADVANCED SHORTHAND.

Delete OF 205 Advanced Shorthand from Secretary option.

The Business and Office Education Program is designed to meet the needs of students as they prepare to enter employment in both private industry and government. Upon enrollment in the program, the student will have an opportunity to pursue a one-year Certificate of Completion in Business and Office Education, or a two-year Associate of Applied Science degree.
in one of the following options: Secretary; Word Processing; or Bookkeeper.

The Business and Office Education Program is competency based which specifies the student performance objectives and the necessary competencies required for employment at entry level.

Approved cooperative education in an office and/or competency testing may be substituted for coursework with special permission of the program head and division manager.

A minimum grade of 'C' is required in all coursework to receive a Certificate of Completion or Associate of Applied Science degree.

**CORE FRESHMAN CLASSES**

<table>
<thead>
<tr>
<th>Course</th>
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<td>Business Math OF 105</td>
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<tr>
<td>Business English OF 109</td>
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<td>-</td>
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<tr>
<td>Proofreading and Spelling OF 119</td>
<td>3</td>
<td>-</td>
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<tr>
<td>Keyboarding OF 106</td>
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<tr>
<td>Intermediate Typing</td>
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<tr>
<td>Intro Information Processing OF 154</td>
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<tr>
<td>Basic Office Procedures OF 107</td>
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<td>Business Writing OF 159</td>
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<td>Word Processing I OF 203</td>
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<td>3</td>
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<tr>
<td>Intermediate Typing</td>
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<td>OR</td>
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<tr>
<td>Advanced Typing OF 157</td>
<td></td>
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</tr>
<tr>
<td>Record Keeping OF 155</td>
<td></td>
<td>3</td>
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<tr>
<td>Job Seeking Skills/Career Planning OF 153</td>
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</table>

**BUSINESS AND OFFICE EDUCATION (BOOKKEEPER OPTION)**

**ASSOCIATE OF APPLIED SCIENCE DEGREE**

This option is designed for the student to obtain a basic knowledge of the business world and to develop the necessary skills to competently perform the duties required of a bookkeeper at an entry level.

Upon successful completion of this option, the learner will not only possess the necessary skills and knowledge to enter the world of work as a bookkeeper, but will also have developed basic skills in computerized bookkeeping, word processing, data base management, proofreading and spelling, business English, and the use of spreadsheets.

**SOPHOMORE YEAR**

<table>
<thead>
<tr>
<th>Course</th>
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<tbody>
<tr>
<td>Bookkeeping I OF 108</td>
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<tr>
<td>Office Skills Practicum/Bookkeeping OF 016</td>
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<tr>
<td>Spreadsheet I OF 201</td>
<td>2</td>
<td>-</td>
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<tr>
<td>Intro Data Base Management OF 202</td>
<td>2</td>
<td>-</td>
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<tr>
<td>Applied Business Communication OF 252</td>
<td>3</td>
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<tr>
<td>Legal Environment of Business GB 202</td>
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</table>
Elective .......................... 3  -
Bookkeeping II OF 152 ............ -  4
Computerized Bookkeeping OF 204 -  5
Spreadsheet II OF 254 ............. -  4
Fundamentals of Supervision OF 253 -  3
Elective .......................... -  3
TOTAL 17 19

BUSINESS AND OFFICE EDUCATION (SECRETARY OPTION)
ASSOCIATE OF APPLIED SCIENCE DEGREE

This option is designed for the student to obtain a basic knowledge of the business world and to develop the necessary skills to competently perform the duties of an office secretary at an entry level.

Upon successful completion of this option, the learner will not only possess the necessary skills and knowledge to enter the world of work as a secretary, but will also have developed basic skills in proofreading and spelling, English usage, shorthand, word processing, machine transcription, record keeping, and computer literacy.

SOPHOMORE YEAR

Basic Shorthand OF 125 .................. 5  -
Computer Business Applications OF 206 -  3
Machine Transcription OF 158 ........... -  3
Applied Business Communication OF 252 -  3
Elective ................................ -  3
Intermediate Shorthand OF 151 .......... -  5
Records Management Procedures OF 251 -  3
Fundamentals of Supervision OF 253 ... -  4
Advanced Typing OF 157 ................ -  4
Word Processing II OF 255 ............. -  3
TOTAL 17 18

BUSINESS AND OFFICE EDUCATION (WORD PROCESSING OPTION)
ASSOCIATE OF APPLIED SCIENCE DEGREE

This option is designed for the student to obtain a basic knowledge of the business world and to develop the necessary skills to competently perform the duties required of an entry level word processing operator.

Upon successful completion of this option, the learner will not only possess the necessary skills and knowledge to enter the world of work as a word processing operator, but will also have developed basic skills in proofreading and spelling, English usage, word processing, machine transcription, record keeping, micro and mini computer literacy.

SOPHOMORE YEAR

Machine Transcription OF 158 ........... 3  -
Advanced Typing OF 157 ................ 4  -
Applied Business Communication OF 252 -  3
Computer Business Applications OF 206 -  3

BOISE STATE UNIVERSITY CATALOG 1987-88 Edition Addendum 27
Electives ................................................. 6 -
Records Management Procedures OF 251 .................... - 3
Word Processing II OF 255 ................................ - 3
Fundamentals of Supervision OF 253 ......................... - 3
Office Skills Practicum/Word Processing OF 015 .............. - 0
Electives .................................................. - 6
TOTAL 19 15

Approved Electives for Business and Office Education programs:

CM 111 Fund of Speech Communication 3
CM 131 Listening 3
CM 221 Interpersonal Communication 3
P 161 Assertiveness Training 3
P 101 General Psychology 3
GB 101 Intro to Business 3

CHILD CARE SERVICES/ MANAGEMENT PAGE 157-158.

REVISION OF CHILD SERVICES/ MANAGEMENT PROGRAM. PAGE 157, 158.

DAY CARE ASSISTANT

Intro to Child Development CC 101 3 -
Intro to Child Development CC 151 - 3
Communication Skills CC 111-112 3 3
Health & Care of Young Child CC 141 3 -
Intro Occupational Relations CC 161 - 2
Curriculum of Young Child CC 171-172 3 3
Child Care Laboratory CC 181-182 3 3
Contract Fld Exper Early Child Prog CC 125-126 1 1
Plan & Eval of Laboratory Exper CC 135-136 2 2
TOTAL 18 17

CREATION OF CC 161. PAGE 157, 158.

CC 161 INTRODUCTION TO OCCUPATIONAL RELATIONS (2-0-2)(S). Instruction and practical application in resume writing, job applications, interviewing techniques and job search. The course will include: Personal money management, credit, and management of personal records and files. One semester course.

28 BOISE STATE UNIVERSITY CATALOG 1987-88 Edition Addendum
CHANGE OF PREREQUISITE FOR CC 261. PAGE 157, 158.

CC 261 OCCUPATIONAL RELATIONS (2-0-2) (S). Course is designed to enable a student to become skilled in dealing effectively with people and for applying, getting, maintaining, and advancing in employment. One semester course. PREREQ: CC 161.

DELETION OF CC 231. PAGE 157.

Delete CC 231 Child Care Center Management from curriculum.

DRAFTING TECHNOLOGY PAGE 160-161.

CHANGE IN MAJOR REQUIREMENTS FOR DRAFTING. PAGE 160, 161.

DRAFTING TECHNOLOGY
ASSOCIATE OF APPLIED SCIENCE DEGREE

This curriculum is organized to provide engineering departments, government agencies, consulting engineers and architectural firms with a technician well versed in the necessary basic skills and knowledge of conventional and computer aided drafting. The student is required to develop and maintain the same standards and techniques used in firms or agencies that employ drafters and technicians.

FIRST SEMESTER
Drafting lab & Lecture DT 101 ........................................ 4
Fundamentals of Computer Drafting DT 109 .......................... 1
Communication Skills DT 111 .......................................... 3
Mathematics DT 131 ..................................................... 4
Applied Physics DT 141 .................................................. 3
Elective (General) ....................................................... 3

TOTAL 18

SECOND SEMESTER
Drafting lab & Lecture DT 102 ......................................... 4
Communication Skills DT 112 ........................................... 3
Introduction to Surveying DT 122 .................................... 2
Mathematics DT 132 ..................................................... 3
Applied Physics DT 142 .................................................. 3
Fundamentals of Computer Design DT 110 .......................... 1

TOTAL 16

THIRD SEMESTER
Drafting Lab & Lecture DT 201 ........................................... 4
Descriptive Geometry & Development DT 221 ......................... 3
### Fourth Semester

<table>
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<tr>
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<tr>
<td>Drafting Lab &amp; Lecture DT 202</td>
<td>4</td>
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<tr>
<td>Technical Report Writing DT 222</td>
<td>2</td>
</tr>
<tr>
<td>Applied Mathematics DT 232</td>
<td>3</td>
</tr>
<tr>
<td>Specialized Graphics DT 263</td>
<td>2</td>
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<tr>
<td>Strength of Materials DT 242</td>
<td>4</td>
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<tr>
<td>Elective (General)</td>
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</table>

All courses require a minimum 'C' grade to receive the Associates Degree.

### Approved General Electives:

- GB 101 Intro to Business 3
- CM 111 Fund of Speech Communication 3
- CM 131 Listening 3
- SO 101 Intro to Sociology 3
- EC 202 Prin of Economics-Micro 3


Delete DT 153 Manufacturing Processes.
Delete DT 172 Construction Codes.

DT 101 DRAFTING LABORATORY AND LECTURE (1-14-4)(F). Mechanical drafting with basic drafting techniques, standards, methods, and basic block and schematic diagrams for electronics and piping with introduction to computer assisted drafting.

DT 102 DRAFTING LABORATORY AND LECTURE (1-14-1)(S). Architectural drafting includes facility planning, remodeling and details for commercial buildings. PREREQ: DT 101.

DT 109, 110 FUNDAMENTALS OF COMPUTER-AIDED DRAFTING AND DESIGN (1-1-1)(F/S). This course is an introduction to Computer-Aided Drafting and Design Systems. It will prepare students for keyboarding, to operate the systems and understand the applications of computer graphics to industry standards. Students will learn to use an interactive computer graphics system to prepare drawings on a CRT. They will store and retrieve drawings and related information on a magnetic disc and produce commercial quality copies using a computer-driven plotter. COREQ: Familiarity with basic drafting procedures and standards.
ELECTRICAL LINEMAN PAGE 161.

REVISION OF ELECTRICAL LINEMAN PROGRAM. PAGE 161.

ELECTRICAL LINEMAN CERTIFICATE OF COMPLETION

FALL SEMESTER
Elect Lineworker Lab EL 101 ................................... 5
Elect Lineworker Basics EL 151 5
Elect Lineworker Syst Des/Const EL 161 5
Occupational Relationships EL 262 2
TOTAL 17

SPRING SEMESTER
Elect Lineworker Lab EL 102 ................................... 5
Elect Lineworker Basics EL 152 5
Elect Lineworker Syst Des/Const EL 162 5
TOTAL 15

EL 101-102 ELECTRICAL LINEMAN LABORATORY (0-20-5)(F/S). The field operation provides actual "job type" experience for the student. Course content includes live climbing experiences using ropes and rigging, pole setting and removal with suitable guys and anchors including installation of transformers and street lighting, construction and maintenance of underground distribution networks, troubleshooting all systems including hot stick care and use, plus preventative maintenance on associate systems or equipment.

EL 151-152 ELECTRICAL LINEMAN BASICS (5-05-)(F/S). This course provides the student with the basics of electrical theory, power generation, materials identification and application, overcurrent and protective devices, related equipment application, and personal/occupational safety.

EL 161-162 ELECTRICAL LINEMAN SYSTEMS DESIGN/CONSTRUCTION (5-0-5) (F/S). This course emphasizes electrical power systems, power systems designing and construction techniques, transformer theory, design of transformers and their construction, and transmission networks.

ELECTRONICS SERVICE TECHNOLOGY PAGE 163.

REVISION OF ELECTRONICS SERVICE TECHNOLOGY PROGRAM. PAGE 163.

ELECTRONICS SERVICE TECHNOLOGY
ASSOCIATE OF APPLIED SCIENCE DEGREE

BOISE STATE UNIVERSITY CATALOG 1987-88 Edition Addendum 31
The graduate of this program is prepared to enter the electronics industry with a broad-based general knowledge in electronic equipment repair and maintenance. This technician will be capable of entry-level work on the latest equipment that incorporates analog and digital circuits. The electronic technician from this program is able to specialize in any area of electronics that the employer desires.

**FRESHMAN YEAR**

<table>
<thead>
<tr>
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<tbody>
<tr>
<td>Electronics Lab ES 106</td>
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<tr>
<td>Communication Skills ES 114</td>
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<td>Intro Digital Electronics ES 123</td>
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<tr>
<td>Electronics Math ES 133</td>
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<tr>
<td>Digital Systems I ES 163</td>
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<tr>
<td>Linear Systems I ES 172</td>
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<tr>
<td>Linear Systems I Lab ES 173</td>
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<tr>
<td>Applied Math ES 182</td>
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<tr>
<td>Computer Literacy ES 188</td>
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<tr>
<td>Communication Skills ES 191</td>
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**SOPHOMORE YEAR**

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<tr>
<td>Electronics Lab ES 206</td>
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<tr>
<td>Digital Systems II ES 214</td>
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<tr>
<td>Occupational Relations ES 222</td>
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<td>Telecom-Systems I ES 232</td>
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<td>Linear Systems II ES 237</td>
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<td>Economics of Electronics Service Management ES 264</td>
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<td>Electronic Lab ES 288</td>
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<td>CET ES 274</td>
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<tr>
<td>Digital III ES 275</td>
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<tr>
<td>Microprocessor Systems ES 277</td>
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<tr>
<td>Electro-Mechanical Systems ES 281</td>
<td>3</td>
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<tr>
<td>Telecom-Systems II ES 285</td>
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<tr>
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</table>

**TOTAL CREDITS**

65

Course Offerings:

**ES 106 ELECTRONICS LABORATORY I (0-15-3)(F/S).** Experiments in direct and alternating current, using passive components (resistors, capacitors, and inductors). The use of standard test equipment used by an electronics technician.

**ES 114 COMMUNICATION SKILLS (3-0-3)(F/S).** Industrial applications including the organization and delivery of technical reports in written form. Learning skills necessary to continually update the individual after leaving school.
ES 122 ELECTRONIC THEORY (5-0-5)(F/S). Theory of direct and alternating currents in passive circuits. Circuit analysis of RLC configurations in both AC and DC applications.

ES 123 INTRODUCTION TO DIGITAL ELECTRONICS (2-0-2)(F/S). Introduction to binary number system, digital coding, basic logic gates and logic families.

ES 133 ELECTRONICS MATHEMATICS (5-0-5)(F/S). The number system, algebra and algebraic equations, exponential and logarithmic equations, vectors, and graphing.

ES 163 DIGITAL SYSTEMS I (2-02-)(F/S). Basic TTL and MOS gate operations, combinational logic circuits, Boolean Algebra, fan-out specifications, propagation delay and operating speed. Basic sequential logic operations, R-S and J-K flip-flop fundamentals. PREREQ: ES 123.


ES 188 COMPUTER LITERACY FOR ELECTRONIC TECHNICIANS (2-0-2)(F/S). An introductory computer course dealing in the use of the computer as a writing and computational tool. The student will be introduced to word processing and the BASIC computer programming language. Includes program writing and structuring techniques, software troubleshooting and documentation.

ES 191 COMMUNICATION SKILLS (3-0-3)(F/S). The delivery of technical reports in oral form and business correspondence. PREREQ: ES 114. ES 206 ELECTRONICS LAB (0-15-3). Combined electronics lab covering circuits and equipment used in ES 237, ES 214, ES 281 and ES 232. Lab will stress hands-on exposure to circuits and equipment and will provide various troubleshooting techniques to be used in equipment repair.


ES 232 TELECOMMUNICATION SYSTEMS I (2-0-2)(F/S). Introduction to electronic communication systems. Types of information to be conveyed by a communication channel. Role of receiver and transmitter. Generation and
reception of radio waves. Use of radio waves and light waves as information carriers.


ES 281 ELECTRO-MECHANICAL SYSTEMS (3-0-3)(F/S). Electronic measurement and detection through the use of electronic transducer devices. Mechanical control through the use of electro-mechanical actuators and devices. Photoelectric sensors, thermal sensors, displacement sensors. Solenoids, relays, stepper motors and servo actuators.


EXTENDED PROGRAMS OFFERINGS

The following Extended Programs offerings are not required in the Electronic Service Technology AAS degree program. These courses are designed for upgrading of individuals employed in the Electronic Service Industry. PREREQ: Minimum of two years employment as an Electronic Service Technician, or PERM/INST.

COURSE DESCRIPTION
ES 293 FIBER OPTICS (2-0-2). Basic electronics overview including introductory circuit concepts and schematic interpretation. General circuit construction, voltage, current, power and resistance concepts. Components of fiber optic communication systems. Optical fiber properties and types, applications, advantages and limitations. Transformation of voice information to digital form and applications of digital signal multiplexing for use with optical fiber signal transmission and reception. System testing and standardized trouble-shooting procedures.

ES 295 DIGITAL CONCEPTS WITH INTRO MICROPROCESSORS (1-4-2). A laboratory oriented digital electronics course covering the areas of combinational logic, sequential logic, digital-to-analog and analog-to-digital conversion and introductory microprocessors. Logic trouble-shooting will be emphasized throughout the course and trouble-shooting instruments and techniques will be introduced.

HEAVY DUTY MECHANICS-DIESEL PAGE 163.

REVISION OF HEAVY DUTY MECHANICS-DIESEL PROGRAM. PAGE 163.

HEAVY DUTY MECHANICS-DIESEL

CERTIFICATE OF COMPLETION

This program is designed to prepare students for entry level employment in the heavy mechanics field. Instruction will include the basics in design and fundamentals of operation of gasoline and diesel engines, heavy duty trucks, equipment and component parts and shop safety. Instruction will be on mock-ups and actual working units.

SUBJECTS

First eight week block

<table>
<thead>
<tr>
<th>Subject</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Introduction to Engines DM 106</td>
<td>4</td>
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<tr>
<td>Engine Component Systems DM 107</td>
<td>2</td>
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<tr>
<td>Diesel Fuel Systems DM 108</td>
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Second eight week block

<table>
<thead>
<tr>
<th>Subject</th>
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<tbody>
<tr>
<td>Basic Heavy Equipment Welding DM 109</td>
<td>1</td>
</tr>
<tr>
<td>Clutches and Transmissions DM 110</td>
<td>3</td>
</tr>
<tr>
<td>Power Take-Off and Drive Lines DM 111</td>
<td>1</td>
</tr>
<tr>
<td>Differential, Power Dividers, Final</td>
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</tr>
<tr>
<td>Drive and Planetary Systems DM 112</td>
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<td>TOTAL</td>
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Third eight week block

<table>
<thead>
<tr>
<th>Subject</th>
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<tbody>
<tr>
<td>Basic Electrical and Magnetism DM 113</td>
<td>2</td>
</tr>
<tr>
<td>Batteries, Switches, Relays and Solenoids DM 114</td>
<td>4</td>
</tr>
<tr>
<td>Basic Hydraulics DM 115</td>
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Fourth eight week block

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<tr>
<td>Air Systems DM 116</td>
<td>2</td>
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<tr>
<td>Hydraulic Brakes DM 117</td>
<td>2</td>
</tr>
<tr>
<td>Steering and Suspension Systems DM 118</td>
<td>2</td>
</tr>
<tr>
<td>Engine Brakes DM 119</td>
<td>2</td>
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<tr>
<td>Occupational Relations DM 262</td>
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<td><strong>TOTAL</strong></td>
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Summer Session

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<tr>
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<tbody>
<tr>
<td>Project Lab</td>
<td></td>
</tr>
<tr>
<td>Lecture DM 120 Lecture DM 120</td>
<td></td>
</tr>
</tbody>
</table>

DM 106 INTRODUCTION TO ENGINES (3-6-4(F)). Theory and principles of operation. Engine disassembly, assembly component identification and function, use of measuring instruments and precision parts measuring.

DM 107 ENGINE COMPONENT SYSTEMS (2-2-2)(F). Cooling system, lube system, air intake system, supercharges, exhaust systems, turbochargers, heads, valves, reconditioning of seats and valves, valve train mechanisms.

DM 108 DIESEL FUEL SYSTEMS (2-2-2)(F). Cummins PT systems, Port and Helix metering system, includes Robert-Bosch, United-Technology, Simms and Caterpillar, sleeve metering systems, unit injectors, and distributor pump includes, Stanadyne and CAV, fuel filters and injectors and nozzles and holders.

Total 8 credits for this block - repeated in Fall Semester.

DM 109 BASIC HEAVY EQUIPMENT WELDING (1-1-1)(F). Includes basic theory and lab of arc and gas welding, related to the maintenance and repair of heavy equipment.

DM 110 CLUTCHES AND TRANSMISSIONS (2-5-3)(F). Covers complete disassembly and assembly of heavy duty single and double disk clutches and theory and operation of heavy duty manual transmission will complete complete disassembly and assembly procedures to factory specifications.

DM 111 POWER TAKE-OFF AND DRIVE LINES (1-1-1)(F). Will cover power take-off and drive line disassembly and assembly to factory specifications.

DM 112 DIFFERENTIAL, POWER DIVIDERS, FINAL DRIVE AND PLANETARY SYSTEMS (2-5-3)(F). Includes complete disassembly and assembly differentials, power dividers, basic final drive systems, and planetary systems in heavy duty equipment.

Total 8 credits for this block - repeated in Fall Semester.

DM 113 BASIC ELECTRICAL AND MAGNETISM THEORY (2-2-2)(S). Includes basic electricity and magnetism theory with electrical circuits and test equipment procedures and circuit testing with multimeter.

DM 114 BATTERIES, SWITCHES, RELAYS AND SOLENOIDS (3-6-4)(S). Introduction to batteries, switches, relays and solenoids, starter and charging systems used in electrical circuits of heavy duty equipment.
DM 115 BASIC HYDRAULICS (2-2-2)(S). Introduction to basic hydraulic theory and practices of hydraulic systems, lines, fittings, accumulators, oil coolers, circuits, valves, pumps and motors.

Total 8 credits for this block - repeated in Spring Semester.

DM 116 AIR SYSTEM (2-2-2)(S). Air compressors, air brakes, parking brakes, air cans, spring brake cans, slack adjustors, brake shoes, air tanks and air piping.

DM 117 HYDRAULIC BRAKES (2-2-2)(S). System components and functions of brake systems, including brake shoes, drums, wheel bearings, wheel spindles, seals, brake adjustments.

DM 118 STEERING AND SUSPENSION SYSTEMS (2-2-2)(S). Suspension system including torsion bars, springs, air suspensions, wheels, tires, frames.

DM 119 ENGINE BRAKES (2-2-2)(S). Jacobs and Cummins C brake components and operation, retarders, construction and operation, shop skills, including sharpening drill bits and chisels, drilling and tapping holes, making copper and aeroquip lines, fittings and fasteners.

Total 8 credits for this block, repeated Spring Semester.

DM 262 OCCUPATIONAL RELATIONS (2-0-2)(S). Course is designed to enable a student to become skilled in dealing effectively with people and for applying, getting, maintaining and advancing in employment.

DM 120 PROJECT LAB/LECTURE (10-25-8)(SU). Repairs of outside projects in the heavy duty mechanical areas.

REFRIGERATION, HEATING AND AIR CONDITIONING PAGE 167.

DELETION OF RH 123, 143, CHANGE TO 9 MONTH PROGRAM. PAGE 167.

Delete RH 123 Air Conditioning, Refrigeration and Heating Laboratory and RH 143 Air Conditioning, Refrigeration and Heating Theory from curriculum.