The Weber State University Dr. Ezekiel R. Dumke College of Health Professions, in cooperation with affiliated clinical facilities and other departments on the campus, offers an expanding program for the education and training of health care professionals. The programs emphasize an integration of basic sciences, discipline-specific skills and knowledge, clinical experiences, and liberal arts which enable the graduate to make a maximum contribution to patient care as a member of the health care team.

Through the organization of the health science educational programs in one college, a common core curriculum is operational which fosters the team concept of health care and the integration and application of the basic biomedical sciences to patient needs.

**Department/Area Listing**

Clinical Laboratory Sciences ........................................................ 223
Premevalidal/Predental/Preveterinary ........................................... 223
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Radiography ............................................................................. 251
Diagnostic Medical Sonography ..................................................... 257
Nuclear Medicine ...................................................................... 258
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**Department Chairs**

Clinical Laboratory Sciences: Dr. Yasmen Simonian .......... 626-6118
Dental Hygiene: Ms. Stephanie Bossenberger-James .......... 626-6451
Emergency Care and Rescue: Mr. Jeff Grunow ................... 626-6521
Health Sciences: Dr. Marie Kotter ....................................... 626-6505
Health Administrative Services: Dr. Ken Johnson .............. 626-7242
Nursing: Dr. Debra Huber ................................................... 626-6142
Radiologic Sciences: Dr. Robert Walker .............................. 626-6057
Respiratory Therapy: Mr. Mitch Oki ................................... 626-7071

**Bachelor of Arts and Bachelor of Science degree programs are offered in the following areas:**

Clinical Laboratory Sciences
Advanced Dental Hygiene
Health Administrative Services
- Health Information Management
- Health Promotion
- Health Services Administration
- Long Term Care Administration
  - Nursing
  - Radiologic Sciences
  - Respiratory Therapy

**Associate of Science degree programs are offered in:**

Dental Hygiene
Nursing
Respiratory Therapy

**Associate of Applied Science degree programs are offered in:**

Clinical Laboratory Sciences
Emergency Care & Rescue (Paramedic)
Health Information Technology
Nursing
Radiologic Technology
Respiratory Therapy

**Minors are offered in:**

Health Administrative Services
Radiologic Sciences
Respiratory Therapy

**Institutional Certificates are offered in:**

Emergency Care & Rescue (EMT-Paramedic)
Healthcare Coding and Classification
Health Services Administration (graduate certificate)
Practical Nursing

Certifications are offered in Clinical Laboratory Assistant, Diagnostic Medical Sonography, Emergency Medical Technician, Nuclear Medicine, Radiation Therapy and Radiologic Sciences (including Advanced Radiography and other Emphases listed on page 252)

**Degrees Offered**

**Bachelor of Applied Technology (BAT)** degree program is offered in:

Health Administrative Services

*This program is described in the Interdisciplinary Programs section of this catalog. Contact the Admissions Advisement office listed above for more information.*
A student in the Dr. Ezekiel R. Dumke College of Health Professions may receive Honors in one of the listed majors in the following manner: (1) maintain an overall GPA of 3.3; (2) be enrolled in the General Honors Program and complete at least 9 hours of General Honors courses or 9 hours in approved Departmental Honors credit in majors other than the student's major (these may include Health Sciences core courses); (3) fulfill the requirements for one of the majors in Dumke College of Health Professions; (4) take at least 12 of the required credit hours in major courses taken for Honors credit; (5) in the case of the major leading to the baccalaureate degree, complete an Honors Senior Project course. (This project may be included among the foregoing requirements.) Clinical Laboratory Sciences students should refer to specific requirements for CLS Departmental Honors. Radiologic Sciences students may receive credit in all Radiologic Technology courses, except RADT 1022, 1303, and 2403.

All students desiring Honors credit should seek permission from individual program directors at the time of registration. At the beginning of the course, the student should make a written agreement with the appropriate professor regarding the work expected for Honors credit. This written agreement will be filed immediately with the program director.

**HONORS PROGRAM**

**DEPARTMENT**

**CLINICAL LABORATORY SCIENCES**

Department Chair: Dr. Yasmen Simonian
CLT Program Coordinator: Leonard Gary Nielsen
Medical Advisor: Val B. Johnson, M.D.
Location: Marriott Allied Health Building, Rm 208
Telephone Contact: Amanda Harden 801-626-6118
Professors: Leonard Gary Nielsen, Yasmen Simonian; Associate Professor: Scott H. Wright; Assistant Professor: William B. Zundel; Instructors: Kara Hansen-Suchy and Travis Price
Professional Staff: Kent J. Criddle, Laboratory Manager

The Clinical Laboratory Sciences program is nationally accredited by the National Accrediting Agency for Clinical Laboratory Science (NAACLS). As defined within the Clinical Laboratory Improvement Act of 1988 (CLIA 88), the latter program is offered during Summer Semester at times that are compatible with individuals working full time during the day.

**Bachelor’s Degree - BS in CLS**

Clinical Laboratory Scientists (CLS) or Medical Technologists (MT) perform laboratory testing vital to the detection, differential diagnosis, treatment, and study of disease and health maintenance. The Weber State University programs utilize a career ladder concept in curriculum planning and educational preparation. The campus-based four-year program offers a BS degree in an integrated setting where students complete their degree in a structure that does not require extended formalized external clinical instruction.

The Online-program offers registered Clinical Laboratory Technicians (CLT) or Medical Laboratory Technicians (MLT) an opportunity to complete a bachelor's degree in clinical laboratory sciences within their own clinical setting utilizing varied instructional learning approaches including technology-assisted learning and customized preceptorships. The Online BS program is offered nationally in conjunction with the university's Division of Continuing Education.

**Associate's Degree - AAS in CLS**

The two-year clinical laboratory technician AAS degree is also an integrated campus-based program and allows the graduate to take the national certification examinations after two years.

The WSU Clinical Laboratory Sciences Online-program offers the employees of clinical laboratories an opportunity to complete an AAS degree in clinical laboratory sciences. Graduates of the program are eligible to take national examinations to become certified as clinical laboratory technicians (CLT) or medical laboratory technicians (MLT). Students admitted to the online AAS degree program are expected to meet the same department requirements, policies, and outcomes as the on-campus students. Laboratory competencies will be met at the students’ respective work facilities. Please refer to the Employer Support Information on the CLS Department web site, weber.edu/cls.

Both the BS and AAS programs are accredited by the National Accrediting Agency for Clinical Laboratory Sciences (NAACLS). As such, graduates are eligible for several options for national certification including ASPC and NCA.

**Certification Program**

To meet the need for clinical laboratory competencies in a rapidly changing health care system, the CLS program offers an intensive Certification Program, which provides applied core clinical laboratory skills required primarily for testing performed in physician office labs (POL’s) and other decentralized testing sites. These sites mostly perform waived or moderately complex testing as defined within the Clinical Laboratory Improvement Act of 1988 (CLIA 88). The latter program is offered during Summer Semester at times that are compatible with individuals working full time during the day.

**Program Admissions**

**Bachelor's Degree**

Students must have completed an AAS degree in Clinical Laboratory Sciences and/or be CLT certified, meet with a CLS faculty advisor and submit an application complete with a non-refundable $20 fee by May 1st of the year they wish to enter the program.

**Associate's Degree**

Students must meet with a CLS faculty advisor, complete the pre-application courses listed in the Admissions Requirements and make application to the program by May 1st of the year they wish to enter the program. There is a $20 non-refundable application fee for the program.

**Certification Program**

The program is offered to individuals employed in the health care desiring a core of clinical laboratory skills. The program is designed to encourage medical assistants, phlebotomists, certified nursing practitioners and similar health care workers to achieve competencies that will better serve patient care in settings requiring basic laboratory testing as a part of the facility’s health care services. The program’s courses are directed toward achieving entry level competencies required for accurate performance of basic laboratory testing under the regulations set forth through CLIA 88 waived and moderately complex testing protocols under the direct supervision of laboratory directors and/or supervisors.

Interested individuals will need to contact the program office for advisement and further details.

**Pre-Med/Pre-Dental/Pre-Vet/Pre-Professional**

Since the BS/CLS program offers in a bachelor's degree in an applied medical science, it offers an attractive alternate approach to traditional pre-professional degree tracks. The program has specific course integration with other required pre-professional course requirements. See a CLS faculty advisor for more specific information.
**CLINICAL LABORATORY SCIENCES MAJOR**

**BACHELOR DEGREE (B.S.)**

- Program Prerequisite: Completion of A.A.S. Degree requirements and/or CLT certification. Students must have CLT certification as a clinical laboratory technician if transferring from another college's or university's technician program.

- Minor: A minor is not required, but minors are available in chemistry and microbiology with successful completion of additional courses as specified by the department offering the minor.

- Grade Requirements: A grade of 'B-' or better in all CLS courses. A grade of 'C-' or better in all support courses. Minimum cumulative GPA of 2.00.

- Credit Hour Requirements: A total of 129 credit hours is required for graduation – 67 of these are required CLS courses, 33 are required support courses, and 29 are required general education courses.

**Advisement**

All clinical laboratory sciences students are required to meet with a faculty advisor prior to application. Thereafter, advisement each semester is recommended. Call 801-626-6118 for more information or to schedule an appointment.

**Admission Requirements**

1. Completion of WSU Clinical Laboratory Sciences A.A.S. Degree requirements and/or CLT/MLT certification. Transfer students must have CLT/MLT certification.
2. Declare Clinical Laboratory Sciences as your program of study.
3. Submit application and a non-refundable $20 fee to the DCHP Admissions and Counseling office by May 1.
4. A complete Federal background check and drug screen is required (upon acceptance to program)

Fall Semester admission deadline for online students is March 1.
Spring Semester admission deadline for online students is October 1.

For more information, contact the CLS office at 801-626-6118.

Students interested in the CLS B.S. Online program admission requirements, please refer to www.weber.edu/cls.

**General Education Requirements**

Refer to pages 36-41 for Bachelor or Science requirements. The following required courses will fulfill both program requirements and general education requirements in the Life and Physical Sciences areas: CHEM PS/SI1110, CHEM PS/SI1210, HTHS LS1110, MICR LS1113, MICR LS/SI2054, PHYS PS/SI1010. Remaining general education requirements can be fulfilled by taking the required credit hours in the following areas:

- 6 credit hours Composition
- 3 credit hours Quantitative Literacy
- 3 credit hours American Institutions
- 9 credit hours Creative Arts & Humanities
- 2-5 credit hours Computer Literacy
- 6 credit hours Social Sciences

Some requirements may be met by ACT, CLEP, and/or AP scores as designated by the University (contact the Admissions Office for more information).

**Course Requirements for B.S. Degree**

### Clinical Lab Courses Required (34 credit hours)

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>CLS 1113</td>
<td>Introduction to Clinical Practice (4)</td>
</tr>
<tr>
<td>CLS 1123</td>
<td>Principles of Clinical Hematology &amp; Hemostasis (5)</td>
</tr>
<tr>
<td>CLS 1154</td>
<td>Supervised Clinical Experience: First Year (1)</td>
</tr>
<tr>
<td>CLS 2211</td>
<td>Principles of Clinical Chemistry I (5)</td>
</tr>
<tr>
<td>CLS 2212</td>
<td>Principles of Clinical Microbiology I (4)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>CLS 2213</td>
<td>Principles of Clinical Chemistry II (5)</td>
</tr>
<tr>
<td>CLS 2214</td>
<td>Principles of Clinical Microbiology II (4)</td>
</tr>
<tr>
<td>CLS 2215</td>
<td>Principles of Clinical Immunohematology (4)</td>
</tr>
<tr>
<td>CLS 2256</td>
<td>Supervised Clinical Experience I (1)</td>
</tr>
<tr>
<td>CLS 2257</td>
<td>Supervised Clinical Experience II (1)</td>
</tr>
</tbody>
</table>

Transfer students must have completed a CLS program and be CLT/MLT certified to enter the BS program at the sophomore level.

**Courses Required for Junior and Senior Curriculum (33 credit hours)**

Select one of the following tracks:

- **Track I**
  - CLS SI3302 Advanced Clinical Lab Practices I (4)
  - CLS 3311 Advanced Clinical Immunohematology (3)
  - CLS 3313 Advanced Clinical Hematology & Hemostasis (4)
  - CLS SI3314 Advanced Clinical Chemistry (3)
  - CLS 3316 Advanced Clinical Microbiology (3)
  - CLS 4401 Working Laboratory Theory I (1)
  - CLS 4405 Working Laboratory Theory II (1)
  - CLS 4409 Clinical Correlation (1)
  - CLS 4417 Laboratory Teaching/Supervision I (2)
  - CLS 4442 Applied Working Laboratory I (4)
  - CLS 4446 Applied Working Laboratory II (4)
  - CLS 4453 Supervised Clinical Experience I (1)
  - CLS 4454 Supervised Clinical Experience II (1)

- **Track II**
  - CLS SI3302 Advanced Clinical Lab Practices I (4)
  - CLS 3311 Advanced Clinical Immunohematology (3)
  - CLS 3313 Advanced Clinical Hematology & Hemostasis (4)
  - CLS SI3314 Advanced Clinical Chemistry (3)
  - CLS 3316 Advanced Clinical Microbiology (3)
  - CLS 4409 Clinical Correlation (1)
  - CLS 4453 Supervised Clinical Experience I (1)
  - CLS 4454 Supervised Clinical Experience II (1)
  - CHEM 3307 Organic Chemistry I (5)
  - CHEM 3308 Organic Chemistry II (5)
  - CLS SI3314 Advanced Clinical Chemistry (3)
  - CLS 3316 Advanced Clinical Microbiology (3)
  - CLS 4409 Clinical Correlation (1)
  - CLS 4453 Supervised Clinical Experience I (1)
  - CLS 4454 Supervised Clinical Experience II (1)

**Required Support Courses (36 credit hours)**

- CHEM PS/SI1210 Principles of Chemistry (5)*
  - CHEM SI3302 Advanced Clinical Lab Practices I (4)
  - or CHEM PS/SI1110 Elementary Chemistry (5)*
  - CHEM SI3314 Advanced Clinical Chemistry (3)
  - or CHEM SI1220 Principles of Chemistry (5)*
  - CHEM 2310 Organic Chemistry I (5)*
  - or CHEM SI1120 Elementary Organic Bio-Chemistry (5)*
  - HTHS LS1110 Biomedical Core (4)
  - or ZOOL 2200 Human Physiology (4)
  - HTHS 1111 Biomedical Core Lab (4)
  - or ZOOL 2100 Human Anatomy (4)
  - or PHYS PS/SI1010 Elementary Physics I (3)
  - MICR LS/SI2054 Principles of Microbiology (4)
  - or MICR LS1113 Intro to Microbiology (3)
  - MICR 3324 Pathophysiology of Cells & Tissues (2)
  - or HTHS 3328 Immunology (4)
  - & HTHS 3329 Pathophysiology of Organs & Systems (2)
  - MICR 3305 Medical Microbiology (5)
  - or MICR 3603 Advanced Microbiology for the Health Professions (3)

* Students seeking an A.A.S. or a B.S. degree are required to complete a minimum of two semesters of Chemistry to include an Organic or Biochemistry course.
**Recommended Courses**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>CLS 2003</td>
<td>Applied Lab Math &amp; Lab Statistics (3)</td>
</tr>
<tr>
<td>CHEM 2320</td>
<td>Organic Chemistry II (4)*</td>
</tr>
<tr>
<td>CHEM 3050</td>
<td>Instrumental Analysis (3)</td>
</tr>
<tr>
<td>CHEM 3070</td>
<td>Biochemistry (4)*</td>
</tr>
<tr>
<td>HIM 3010</td>
<td>Information Technology</td>
</tr>
<tr>
<td>HIM SI200</td>
<td>Epidemiology &amp; Biostatistics (3)</td>
</tr>
<tr>
<td>HTHS 2230</td>
<td>Introductory Pathophysiology (4)</td>
</tr>
</tbody>
</table>

*Required for CLS Track II

**Suggested Course Sequence**

Please refer to the program in the on-line catalog (weber.edu/catalog) and/or contact the department for a suggested course sequence.

**Clinical Laboratory Sciences**

**Departmental Honors**

- **Program Prerequisite:** Declare intent to obtain Department Honors in Clinical Laboratory Sciences (CLS) — both with the Honors office (Library 225) and with the CLS Honors Advisor. (See also the Honors Program.)
- **Grade Requirements:** Maintain an overall GPA of 3.3.
- **Credit Hour Requirements:** Upon entering the CLS BS program, determine an Honors project. This may be research related, a community project, or a scholarly paper, presentation or publication. Select courses within the CLS BS curriculum which relate to or enhance the Honors project. With instructor permission, take courses identified and include honors component with each course. (Honors component forms must be signed by both the student and the instructor. These are available in the Honors Center, Library 225.) During the final semester, complete the required course of 4800 Departmental Honors, which includes completion of an Honors project. A minimum of 15 credit hours of upper division CLS courses with the honors component must be complete to receive CLS departmental honors.

Permission from the professor teaching the course and the CLS Honors Advisor must be sought before registering in a course for CLS Honors credit. A written agreement (Honors component form) should be reached with the appropriate professor regarding the work expected for Honors credit.

**Distance Education Online Clinical Laboratory Sciences Major**

**Bachelor Degree (B.S.)**

For more information about the distance education online program, please contact Yasmen Simonian, Department Chair, at (801) 626-7080 or yismonian@weber.edu, or Amanda Harden, CLS Department secretary, at (801) 626-6118, or Kara Hansen-Suchy, CLS Online Programs Coordinator at (800) 848-7770, ext 8138, or khansen-suchy@weber.edu, or visit the CLS Homepage at www.weber.edu/cls.

**Clinical Laboratory Sciences**

**Associate of Applied Science Degree (A.A.S.)**

- **Program Prerequisite:** Students must meet with a CLS faculty advisor, complete the pre-application courses listed under the Admission Requirements below and make application by May 1st of the year they wish to enter the program. Refer to Admission Requirements following.

- **Grade Requirements:** A grade of "C+" or better in all CLS courses.
- **Credit Hour Requirements:** A total of 68 credit hours is required for graduation, 34 of these are required CLS courses, 22 are required support courses, and 12 are required general education courses.

**Admission Requirements**

1. Admission with a CLS faculty advisor.
2. Declare Clinical Laboratory Sciences as your program of study.
3. Complete the following requirements with a letter grade:

   1. of the following courses in chemistry:
      - CHEM PS/SI1110 Elementary Chemistry (5)
      - CHEM PS/SI1210 Principles of Chemistry (5)
   1 course in biomedical core
      - HTHS LS1110 Biomedical Core (4)
      - or ZOOL 2200 Human Physiology (4)
   1 course from the following:
      - CHEM SI1120 Elementary Organic Bio-Chemistry (5)
      - CHEM SI2220 Principles of Chemistry II (5)
      - HTHS 1111 Biomedical Core Lab (4)
      - or ZOOL 2100 Human Anatomy (4)
      - or PHYS PS/SI1010 Elementary Physics (3)
      - CLS 1113 Intro to Clinical Lab Practices (4)
   4. Submit application and a non-refundable $20 fee to DCHIP/Admission and Counseling office by May 1. For more information, contact the CLS office at 801-626-6118.
   5. A complete Federal background check and drug screen is required upon acceptance to program

Students interested in the A.A.S. Online program admission requirements, please refer to www.weber.edu/cls.

**General Education**

Refer to pages 36-41 for Associate of Applied Science requirements. The following required courses will fulfill both program requirements and general education requirements in the Life and Physical Sciences areas: CHEM PS/SI1110, CHEM PS/SI2120, HTHS LS1110, MICR LS111, MICR LS/SI2054, and PHYS PS/SI1010. Remaining general education requirements can be fulfilled by taking the required 12 credit hours from each of the following areas:

   - 3 credit hours Composition
   - 3 credit hours Communication
   - 3 credit hours Computer Literacy
   - 3 credit hours Creative Arts & Humanities
   - 3 credit hours Social Sciences

Some requirements may be met by ACT, CLEP, and/or AP scores as designated by the University (contact the Admissions Office for more information).

**Course Requirements for A.A.S. Degree**

**CLS Courses Required (34 credit hours)**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>CLS 1113</td>
<td>Intro to Clinical Laboratory Practices (4)</td>
</tr>
<tr>
<td>CLS 1123</td>
<td>Principles of Clinical Medicine</td>
</tr>
<tr>
<td></td>
<td>Hematology and Hemostasis (5)</td>
</tr>
<tr>
<td>CLS 1154</td>
<td>Supervised Clinical Experience</td>
</tr>
<tr>
<td></td>
<td>First Year (1)</td>
</tr>
</tbody>
</table>
Acceptance into the CLS program required

**Acceptance into the CLT program required**

control, quality assurance, information recording and transfer,
curriculum will focus on basic laboratory methods in quality

skills to individuals from various health care professions. The

CLS 1000. Core Clinical Laboratory Skills (3)
The CLS 1000 course is designed to teach core clinical laboratory
skills to individuals from various health care professions. The
curriculum will focus on basic laboratory methods in quality
control, quality assurance, information recording and transfer,

Support Courses Required (24-25 credit hours)

CHEM PS/SI1110  Elementary Chemistry (5)
or CHEM PS/SI1210  Principles of Chemistry (5)
CHEM SI1120  Elementary Organic Bio-Chemistry (5)
or CHEM SI1220  Principles of Chemistry II (5)
HTHS LS1110*  Biomedical Core (4)
HTHS 1111*  Biomedical Core Lab (4)
CLS 2003  Applied Lab Math & Lab Statistics (3)
MICR LS1113  Intro to Microbiology (3)
or MICR LS/SI2054  Principles of Microbiology (4)

* Equivalencies to Biomedical Core (HTHS 1110 and HTHS 1111):
  ZOOL 2200  Human Physiology (4)
  and ZOOL 2100  Human Anatomy (4)
  or PHYS PS/SI1010  Elementary Physics (3)

Recommended Courses

HIM SI3200  Epidemiology & Biostatistics (3)
HTHS 2230  Intro Pathophysiology (3)

Suggested Course Sequence

Please refer to this program in the on-line catalog (weber.edu/catalog)
and/or contact the department for a suggested course sequence.

DISTANCE EDUCATION ONLINE

CLINICAL LABORATORY SCIENCES

ASSOCIATE OF APPLIED SCIENCE DEGREE (A.A.S.)

For more information about the distance education online
program, please contact Yasmen Simonian, Department Chair, at
(801) 626-7080 or ysimonian@weber.edu, or Amanda Harden, CLS
Department secretary, at (801) 626-6118, or Kara Hansen-Suchy, CLS
Online Programs Coordinator at (800) 848-7770, ext 8138,
or khansen-suchy@weber.edu, or visit the CLS Homepage at
www.weber.edu/cls.

CLINICAL LABORATORY ASSISTANT (CLA)

CERTIFICATION

For more information about the certification program, please
contact Yasmen Simonian, Department Chair, at (801) 626-7080 or
ysimonian@weber.edu, or Amanda Harden, CLS Department
secretary, at (801) 626-6118, or Kara Hansen-Suchy, CLS Online
Programs Coordinator at (800) 848-7770, ext 8138, or
khansen-suchy@weber.edu, or visit the CLS Homepage at
www.weber.edu/cls.

*Acceptance into the CLT program required

**Acceptance into the CLS program required

CLS 1000. Core Clinical Laboratory Skills (3)
The CLS 1000 course is designed to teach core clinical laboratory
skills to individuals from various health care professions. The
curriculum will focus on basic laboratory methods in quality
control, quality assurance, information recording and transfer,

normal and abnormal laboratory values, and problem recognition.
Students will receive basic technical instruction in phlebotomy,
specimen collection and processing, and laboratory instrumenta-
tion in the areas of hematology, serology, urinalysis, and clinical
chemistry. Prerequisite: Departmental Approval.

CLS 1113. Introduction to Clinical Laboratory Practices (4)

Principles and applications to laboratory testing including safe
practices for the laboratory practitioner, specimen quality
assurance, phlebotomy, urinalysis, basic concepts in clinical
immunology, and clinical approaches to immunological testing.
Laboratory session addresses the principles and applications to
laboratory testing including safe practices for the laboratory
practitioner, specimen quality assurance, phlebotomy, urinalysis,

basic concepts in clinical immunology, and clinical approaches to
immunological testing.

CLS 1123. Principles of Hematology and Hemostasis (5)

Fundamental theories of hemopoiesis, routine laboratory
evaluation of blood components using standard instrumentation
and microscopic methods, including safety and quality control.
Fundamental theories of hemostasis and introduction to abnormal
hematology. Introduction to routine laboratory methods in

CLS 1154. Supervised Clinical Experience: First Year (1)

Off-campus supervised clinical experiences administered in
conjunction with clinical faculty in WSU affiliated health care
institutions. Prerequisite: CLS 1113 and 1123.

CLS 2003. Applied Laboratory Mathematics and Laboratory Statistics (3)

A discipline-specific course which tailors applied laboratory
mathematics and clinical statistics to all areas of the clinical
laboratory with emphasis in clinical chemistry. Topics to include
reagent preparation, specimen dilution protocols, quality assurance
and quality control, practical applications of common statistical
tests, and statistical analysis using Microsoft Excel. The course is
designed to complement the mathematics component of Clinical
Chemistry CLS 2211 and CLS 2213.

CLS 2211. Principles of Clinical Chemistry I* (5)

Basic concepts and techniques in clinical chemistry and quality
control utilizing manual and automated laboratory procedures.
Emphasis on blood and body fluid assessments of carbohydrates,

bilirubin, non-protein nitrogen testing and electrolyte acid/base
balance. Prerequisite: CHEM PS/SI1110 and CHEM SI1120 or CHEM
PS/SI1210 and SI1220.

CLS 2212. Principles of Clinical Microbiology I* (4)

This course provides an in-depth coverage of clinically significant
bacteria including epidemiology, pathogenicity, procedures for
\n
traditional laboratory identification and antimicrobial testing.
Prerequisite: MICR LS1113 or MICR LS/SI2054 may be taken
concurrently.

CLS 2213. Principles of Clinical Chemistry II* (5)

Continuation of CLS 2211 with the introduction to methods for
the assessment of proteins, lipids, enzymology, therapeutic drug
monitoring, toxicology and basic endocrinology. Prerequisite:
CLS 2211.

CLS 2214. Principles of Clinical Microbiology II* (4)

This course is a continuation of CLS 2212 including,
clinical mycology, virology, parasitology and miscellaneous clinical
bacteria. Prerequisites: CLS 2212, MICR LS1113 or MICR LS/SI2054.
CLS 2215. Principles of Clinical Immunohematology* (4) S
Lecture and laboratory covering the theory and principles of Immunohematology relevant to blood group serology, antibody detection and identification, compatibility testing, component preparation and therapy in blood transfusion service, quality control parameters, donor screening and phlebotomy, transfusion reactions and hemolytic disease of the newborn. Prerequisite: CLS 2113.

CLS 2256. Supervised Clinical Experience I* (1) Su, F, S
Off campus supervised clinical experiences administered in conjunction with clinical faculty in WSU affiliated health care institutions. Prerequisite: CLS 2211, 2212, 2213, 2214, 2215.

CLS 2257. Supervised Clinical Experience II* (1) Su, F, S
Off campus supervised clinical experiences administered in conjunction with clinical faculty in WSU affiliated health care institutions. Prerequisites: CLS 2211, 2212, 2213, 2214 and 2215.

CLS 2830. Directed Readings* (1-3) F, S
Topics in Laboratory Medicine under the direction of departmental faculty advisor. May be repeated for a maximum of 6 hours.

CLS 2920. Short Courses, Workshops, Institutes and Special Programs* (1-3) F
Consult the semester class schedule for the current offering under this number. The specific title and credit authorized will appear on the student transcript.

CLS SI3302. Advanced Clinical Laboratory Practices I* (4) F
Advanced theory to include laboratory instrument systems comparison, evaluation, and CLIA 88 validation procedures with emphasis on scientific research design and statistical analysis. Interrelated topics in the clinical laboratory sciences to include educational strategies for laboratory personnel, approaches to workload management, budgeting and marketing strategies for laboratory services. Students also learn about and evaluate the new diagnostic technology available to clinical laboratories, as well as learning how to select, evaluate, design, perform, and document CLIA-88 acceptable validations studies on new chemistry instrumentation or analytical methods. Interrelated topics in the clinical laboratory to include workload management, designing and implementing standards for quality assurance, budgeting laboratory operations, and investigative concepts related to new method and instrument evaluation, selection, and validation.

CLS 3311. Advanced Clinical Immunohematology** (3) F
Advanced blood banking theory and specialized procedures as they pertain to transfusion of whole blood and blood components; Quality Assurance and Regulatory issues pertaining to Transfusion Medicine. Prerequisite: CLS 2215.

CLS 3313. Advanced Clinical Hematology and Hemostasis** (4) F
Correlation of clinical laboratory hematology and hemostasis with emphasis on hematopathology specialized procedures and hematological abnormalities in human cellular components. Routine and specialized coagulation procedures will also be used to detect hemorrhagic and thrombotic problems. Prerequisite: CLS 1123.

CLS SI3314. Advanced Clinical Chemistry** (3) S
This problem-solving oriented course presents the correlation of clinical chemistry test results to organ-related diseases, such as renal, hepatic, and endocrine diseases. The students will learn how to use clinical correlation as a quality assurance tool to detect patient testing errors. Students also learn about and evaluate the new diagnostic technology available to clinical laboratories, as well as learning how to select, evaluate, design, perform, and document CLIA-88 acceptable validations studies on new chemistry instrumentation or analytical methods. Interrelated topics in the clinical laboratory to include workload management, designing and implementing standards for quality assurance, budgeting laboratory operations, and investigative concepts related to new method and instrument evaluation, selection, and validation. Additionally, Therapeutic Drug Monitoring and Toxicology studies are presented. Prerequisites: Acceptance into the CLS Program, completion of the university's Quantitative Literacy requirement, and completion of CLS SI3302 (Advanced Clinical Laboratory Practices).

CLS 3316. Advanced Clinical Microbiology** (3) S
Correlation of laboratory and clinical information in clinical microbiology. Method analysis and evaluation. Students research and present in written and oral formats case histories and current topics with emphasis on the laboratory recognition of infectious diseases. Prerequisite: MICR 3305 or MICR 3603 may be taken concurrently.

CLS 4401. Working Clinical Laboratory Theory I** (1) F
Foundational principles for establishing a simulated working laboratory in which students refine technical skills, problem identification and solving, refine work-load management and decision-making skills, development of strategies for managing and implementing the rules and regulations that govern clinical laboratory testing. Prerequisite: CLS SI3302. CLS 4442 must be taken concurrently.

CLS 4405. Working Clinical Laboratory Theory II** (1) S
A continuation of CLS 4401. Simulated processes of providing all facets of clinical laboratory services. Prerequisites: CLS 4401 and 4442. CLS 4446 must be taken concurrently.

CLS 4409. Clinical Correlation** (1) S
Physician guided correlation between laboratory data and patient diagnosis. Prerequisite: CLS 4401 and 4442.

CLS 4414. Laboratory Teaching and Supervision I** (2) F
Students will work with a faculty member teaching one of the first year or certificate courses. Students are expected to apply sound educational and performance evaluation strategies set forth in CLS SI3302. Students also are presented the opportunity to refine their interpersonal skills through a teaching/learning process specifically designed for the clinical laboratory scientist. Prerequisite: CLS SI3302.

CLS 4417. Laboratory Teaching and Supervision II** (1) S
Continued processes set forth in CLS 4414. Students will work with a faculty member teaching one of the second year courses which are contain more technically demanding material. Students are expected to apply sound educational and performance evaluation strategies set forth in CLS SI3302. Students also are presented the opportunity to refine their interpersonal skills through a teaching/learning process specifically designed for the clinical laboratory scientist. Prerequisites: CLS 4414.

CLS 4442. Applied Working Laboratory I** (4) F
Project-based applications set forth in CLS 4401. Students staff a simulated clinical laboratory and assume responsibilities associated with all facets of laboratory operations. Clinical and academic faculty serve as advisors/managers to each team of students. The project develops team building skills critical to the modern health care setting. Prerequisite: CLS 4401 must be taken concurrently.
**DEPARTMENT **

**DENTAL HYGIENE**

Department Chair: Ms. Stephanie Bosenberger-James, RDH, M.S.
Location: Allied Health, Room 475
Telephone Contact: Karen Bateman 801-626-6130
Professors: Stephanie Bosenberger-James, Frances L. McConaughy;
Assistant Professors: Sue Dougherty, Joy Gall, Kami Hanson;
Instructor Specialist: Susan Alexander

The dental hygienist is a health educator concerned with the prevention of dental disease. Dental hygienists perform their services under the supervision of licensed dentists, and are the only members of the dental team who are licensed to perform a service directly to the client. Dental hygienists provide oral health education, remove deposits from around the teeth and gums, expose dental radiographs and deliver other treatments to prevent and manage dental disease.

The dental hygiene curriculum is three years in length. The first year may be completed at any accredited college or university and consists of pre dental hygiene courses. These courses include: chemistry, anatomy, physiology, microbiology, English, public speaking, psychology, sociology and nutrition. This year of pre-dental hygiene courses is followed by two years of specialized study in dental hygiene. The two year dental hygiene curriculum includes practical experience in the WSU Dental Hygiene Clinic. Students also rotate to off-campus sites for extended clinical experiences.

Students who successfully complete the three-year curriculum are awarded an Associate of Science degree from Weber State. A fourth year leading to a bachelor's degree is optional. To become a licensed dental hygienist, each student must successfully pass a written National Board Exam and a practical regional exam. The Dental Hygiene Program is accredited by the American Dental Association's Commission on Dental Accreditation, a specialized accrediting agency recognized by the Council on Post-secondary Accreditation and the United States Department of Education.

**DENTAL HYGIENE**

**BACHELOR DEGREE (B.S.)**

- Program Prerequisite: Successful completion of an Associate's Degree in Dental Hygiene, National Board Examination and a Regional or State Practical Exam. Maintenance of a current dental hygiene license
- Minor: Not Required.
- Grade Requirements: All courses required for the major must be successfully completed with a grade of 'C' or better (a 'C-' grade is not acceptable).
- Credit Hour Requirements: A total of 120 credit hours is required for graduation – 88 of these are taken for the A.S. degree and an additional 7 must be taken to complete the B.S. in Dental Hygiene degree. A prerequisite to the Baccalaureate Thesis course is an upper division Research and Statistics course (numbered 3000 or above, minimum of 3 cr hrs). Thirteen more upper division hours are selected by the student from a menu of elective courses. Transcripts of transfer students will be evaluated on an individual basis. Transfer students must also complete the residency requirement (30 credit hours of WSU course work).

**Advisement**

Bachelor of Science Dental Hygiene majors must complete a contract with the Dental Hygiene Department Chair.

**Admission Requirements**

An Advanced Dental Hygiene major application to the program of study contract must be completed with the Dental Hygiene Department Chair prior to beginning any of the advanced courses.

**General Education**

Refer to pages 36-41 for Bachelor of Science requirements. Any general education requirements not taken as part of the A.S. program must be completed in order to graduate with a B.S. degree.

**Course Requirements for B.S. Degree**

To be taken in addition to the courses required for an Associate's Degree in Dental Hygiene.

**Dental Science Courses Required (7 credit hours)**

A total of seven additional DENT credit hours are required: two from DENT 4530 - Principles and Application of Evidence-based Dental Hygiene Practice, three from DENT SI4780 - Baccalaureate Thesis, and two from DENT 4890 - Advanced Community or Clinical Work Experience. DENT SI4780 may be used to fulfill 3 credit hours of the WSU scientific inquiry B.S. requirement.

DENT 4530 Principles and Application of Evidence-based Dental Hygiene Practice (2)
DENT SI4780* Baccalaureate Thesis (3)
DENT 4890 Advanced Community or Clinical Work Experience (2)

* A prerequisite to the Baccalaureate Thesis course is an upper division Research and Statistics course (numbered 3000 or above, minimum of 3 cr hrs).

Each student must also select upper division course work from a menu of elective courses to bring the total of upper division hours to 40 credit hours.
DENTAL HYGIENE
ASSOCIATE OF SCIENCE DEGREE (A.S.)

- **Program Prerequisite**: Completion of the prerequisite courses listed under the Admission Requirements below.
- **Grade Requirements**: Prerequisite course work must meet a standard of 2.25 GPA. All courses required for the major must be successfully completed with a grade of "C" or better (a "C-" grade is not acceptable).
- **Credit Hour Requirements**: A total of 44 credit hours of dental science course work is required for the associate's degree. Additionally, 35 hours of prerequisites are necessary. Students must also complete nine additional hours to meet WSU requirements for the A.S. degree. Total credit hour requirements equal 88 hours.

**Advisement**
Prospective students are advised by the advisement counselors in the Dr. Ezekiel R. Dumke College of Health Professions Advisement office. The number of this office is: 1-800-350-7042 (in Utah) out-of-state 1-801-626-7136 or 626-6128. The Dr. Ezekiel R. Dumke College of Health Professions Advisement Office will mail out brochures and applications upon request. Individual counseling appointments can be made for direct assistance.

**Admission Requirements**
Students must apply to and be accepted into the program to be admitted into any of the courses required for a degree in Dental Hygiene. The science prerequisite courses are listed below and must be completed with a minimum GPA of 2.25 prior to being admitted into the program. These basic science courses must have been taken within five years of the date of anticipated enrollment in the Dental Hygiene Program.

- ZOOL 2100 Human Anatomy (4)
- ZOOL 2200 Human Physiology (4)
- CHEM PS1010 Introductory Chemistry (3)
- MICR LS1113 Intro Microbiology (3)

The Biomedical Core (HlthSci 1110 and HlthSci 1111) may be substituted for the four courses listed above. This core will award 4 credit hours to the General Education requirement of Life and Physical Sciences. Five more approved credit hours will be needed to fulfill this category of the general education requirements. At least one course in the additional five hours must be a Physical Science approved general education course.

Other prerequisite courses include:
- HTHS 2230 Intro Pathophysiology (3)
- ENGL EN1010 Intro to Writing (3)
- ENGL EN2010 Intermediate Writing (3)
- PSY SS1010 Intro Psychology (3)
- SOC SS/DV1010 Introduction to Sociology (3)
- COMM HU1020 Principles of Public Speaking (3)
- NUTR LS1020 Foundations in Nutrition (3)

**Application Process**
Applicants to the program must complete a specific application form to be considered for admission into the dental hygiene program. This application package can be obtained from the Advisement Office in the Dr. Ezekiel R. Dumke College of Health Professions (1-800-350-7042 in Utah). The application package will call for letters of reference, current transcripts and ACT scores, and verification of previous health-related work experience. The application deadline for Fall Semester enrollment is February 1st of each year. A $20.00 application fee must be paid at the time the application is submitted.

**General Education**
Refer to pages 36-41 for Associate of Science requirements. The majority of general education requirements for the A.S degree are taken as prerequisites to the program. However, students must complete all Associate of Science general education requirements to earn the degree in Dental Hygiene.

**Course Requirements for A.S. Degree**

### Dental Science Courses Required

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>DENT 2201</td>
<td>Concepts of Community Dental Health (1)</td>
</tr>
<tr>
<td>DENT 2205</td>
<td>Head/Neck and Dental Anatomy (2)</td>
</tr>
<tr>
<td>DENT 2206</td>
<td>Clinical Dental Hygiene/Radiology (4)</td>
</tr>
<tr>
<td>DENT 2207</td>
<td>Dental Hygiene I (3)</td>
</tr>
<tr>
<td>DENT 2208</td>
<td>Radiology (2)</td>
</tr>
<tr>
<td>DENT 2211</td>
<td>Oral Pathology (3)</td>
</tr>
<tr>
<td>DENT 2215</td>
<td>Periodontology (2)</td>
</tr>
<tr>
<td>DENT 2216</td>
<td>Clinical Dental Hygiene II (3)</td>
</tr>
<tr>
<td>DENT 2217</td>
<td>Dental Hygiene II (3)</td>
</tr>
<tr>
<td>DENT 2219</td>
<td>Dental Materials I (1)</td>
</tr>
<tr>
<td>DENT 2235</td>
<td>Dental Medicine I (2)</td>
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<tr>
<td>DENT DV2250</td>
<td>Professional Ethics (1)</td>
</tr>
<tr>
<td>DENT 3301</td>
<td>Community Dental Health</td>
</tr>
<tr>
<td>DENT 3305</td>
<td>Dental Medicine II (3)</td>
</tr>
<tr>
<td>DENT 3336</td>
<td>Clinical Dental Hygiene III (4)</td>
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<tr>
<td>DENT 3337</td>
<td>Dental Hygiene III (3)</td>
</tr>
<tr>
<td>DENT 3346</td>
<td>Clinical Dental Hygiene IV (4)</td>
</tr>
<tr>
<td>DENT 3347</td>
<td>Dental Hygiene IV (2)</td>
</tr>
</tbody>
</table>

### Dental Science Electives

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>DENT 2800</td>
<td>Individual Research (1-3)</td>
</tr>
<tr>
<td>DENT 2830</td>
<td>Directed Readings, Projects and Research (1-3)</td>
</tr>
<tr>
<td>DENT 2920</td>
<td>Short Courses, Workshops, Institutes &amp; Special Programs (1-3)</td>
</tr>
<tr>
<td>DENT 3130</td>
<td>Independent Study (1-3)</td>
</tr>
<tr>
<td>DENT 4405</td>
<td>Dental Hygiene Clinical Teaching Practice (4)</td>
</tr>
<tr>
<td>DENT 4410</td>
<td>Dental Hygiene Needs of the Geriatric Client (2)</td>
</tr>
<tr>
<td>DENT 45530</td>
<td>Principles &amp; Application of Evidence-based Dental Hygiene Practice (3)</td>
</tr>
<tr>
<td>DENT 44780</td>
<td>Baccalaureate Thesis (3)</td>
</tr>
<tr>
<td>DENT 4800</td>
<td>Individual Research (1-3)</td>
</tr>
<tr>
<td>DENT 4810</td>
<td>Summer Elective Clinic (4)</td>
</tr>
<tr>
<td>DENT 4830</td>
<td>Directed Readings, Projects &amp; Research (1-3)</td>
</tr>
<tr>
<td>DENT 4890</td>
<td>Advanced Community or Clinical Work Experience (4)</td>
</tr>
<tr>
<td>DENT 4920</td>
<td>Short Courses, Workshops, Institutes &amp; Special Programs (1-4)</td>
</tr>
<tr>
<td>DENT 4990</td>
<td>Seminar (1-2)</td>
</tr>
</tbody>
</table>

### Suggested Course Sequence

Please refer to this program in the on-line catalog (webster.edu/catalog) and/or contact the department for a suggested course sequence.

### DENTAL SCIENCE COURSES - DENT

All Dental Science Courses require prior acceptance into the Dental Hygiene Program.

### Required Dental Science Courses

DENT 2201. Concepts of Community Dental Health (1)  
This course will present the basic concepts of planning and implementing community dental health programs. These principles include epidemiology, sociological concepts of health and illness, health behavior, public attitudes and principles of dental health education.
DENT 2205. Head/Neck and Dental Anatomy (2)
Identification of major anatomical landmarks of the head and neck, their innervation, blood supply and function. Also includes instruction in the histology and embryology of head and neck development and tooth morphology.

DENT 2206. Clinical Dental Hygiene/Radiology (4)
Clinical application of principles of DENT 2207 and DENT 2208. Must accompany DENT 2207 and DENT 2208. Two four-hour labs each week. Prerequisites: DENT 2206 and DENT 2207.

DENT 2207. Dental Hygiene I (3)
Theory essential to performing clinical treatment, including, but not limited to armamentarium, client-operator positioning, aseptic technique, soft tissue exam, health history, principles of instrumentation and disease control therapies. Must accompany DENT 2206.

DENT 2208. Radiology (2)
Preparatory skills for clinical radiology, including information on radiation safety and exposure techniques. Must accompany DENT 2206.

DENT 2211. Oral Pathology (3)
The study of manifestations of disease processes in the oral cavity.

DENT 2215. Periodontology (2)
The study of basic periodontal structures and disease processes.

DENT 2216. Clinical Dental Hygiene II (3)
Clinical application of DENT 2217. Must accompany DENT 2217. Two four-hour labs each week. Prerequisites: DENT 2206 and DENT 2207.

DENT 2217. Dental Hygiene II (3)
Continuation of DENT 2206. Didactic instruction for intermediate skills in dental hygiene treatment. Must accompany DENT 2216. Prerequisites: DENT 2207.

DENT 2219. Dental Materials (1)
Identification and experiences with materials used in dentistry and dental hygiene.

DENT 2235. Dental Medicine I (2)
The study of common medical conditions and their treatment.

DENT DV2250. Professional Ethics (1)
Professional Ethics is designed to provide dental hygiene students with a foundation in the professional standards governing the dental hygiene profession and the development of ethical decision-making skills, in the context of diversity and respect for others. Throughout the course the student will be guided to explore issues of diversity, prejudices, and their responsibility to provide culturally sensitive care.

DENT 3301. Community Dental Health Service Learning Lab (1)
This course leads the student through on-campus and off-campus field projects with selected community agencies.

DENT 3305. Dental Medicine II (3)
The study of local anesthesia with regard to pharmacology, administration techniques, methods of pain and apprehension control and nitrous oxide sedation. Includes laboratory experiences in the administration of local anesthesia and nitrous oxide sedation. Prerequisite: DENT 2235.

DENT 3336. Clinical Dental Hygiene III (4)
Clinical application of DENT 3337. This course must accompany DENT 3337. Three four-hour clinics each week. Prerequisite: DENT 2206 and DENT 2216.

DENT 3337. Dental Hygiene III (3)
Continuation of DENT 2207, 2217. Emphasis on advanced instrumentation in the care of clients with periodontal disease. Must accompany DENT 3336. Prerequisite: DENT 2207 and DENT 2217.

DENT 3346. Clinical Dental Hygiene IV (4)
Clinical lab which must accompany DENT 3347. One eight hour clinic and one four hour clinic each week. Prerequisite: DENT 2206, 2216, 3336.

DENT 3347. Dental Hygiene IV (2)
Continuation of DENT 2207, 2217, 3337. Emphasis on expanded client care services and with client populations with special treatment needs. Must accompany DENT 3346. Prerequisite: DENT 2207, 2217, 3337.

Elective Courses

DENT SI2230. Oral Health Research & Statistics (2)
This course is designed to provide the student with research design and statistics principles as they apply to oral health settings and issues. Prerequisite: WSU Math Competency.

DENT 2800. Individual Research (1-3)
Special project in a student's area of interest.

DENT 2830. Directed Readings, Projects and Research (1-3)
Limited to dental hygiene majors. A maximum of nine hours may be accumulated with this course.

DENT 2920. Short Courses, Workshops, Institutes and Special Programs (1-3)
Consult the semester class schedule for the current offering under this number. The specific title and credit authorized will appear on the student transcript.

DENT 3130. Independent Study (1-3)
Independent project in an area of interest; second year dental hygiene students only. Project approval by dental hygiene faculty.

DENT 4010. Interdisciplinary Health Care Teams (3)
This course provides an interdisciplinary experience with the team concept as a priority. The students learn the role of the health care team members, each with their different skills and objectives. The course teaches students to practice an interdisciplinary approach as they research, interact and learn in the interdisciplinary environment of a health care setting. Cross-listed with HTHS and NRSG.

DENT 4405. Dental Hygiene Clinical Teaching Practice (4)
Supervised teaching in the Weber State Dental Hygiene program. Prerequisite: Consent of the instructor and acceptance into the BS/DH major program.

DENT 4410. Dental Hygiene Needs of the Geriatric Client (2)
An overview of dental health needs of elderly clients. Prerequisite: Consent of instructor and acceptance into the BS/DH major program.

DENT 4530. Principles and Application of Evidence-based Dental Hygiene Practice (2)
Emphasis is on the critical appraisal of scientific literature, the development of clinical problem statements and hypotheses and the formulation of a research proposal. Ethical issues inherent in the research process and the identification of appropriate hypothesis testing procedures will also be discussed. Prerequisites: Acceptance into the BS/DH program and completion of WSU Quantitative Literacy requirement.
DENT 4780. Baccalaureate Thesis (3)
This course is designed to give dental hygiene students an opportunity to complete a thesis project in partial fulfillment of the requirements for the BS/DH major. Prerequisites: Acceptance into the BS/DH program, completion of the WSU Quantitative Literacy requirement and three (3) credit hours of course work meeting the scientific inquiry BS requirement.

DENT 4800. Individual Research (1-3)
Special project in a student's area of interest.

DENT 4810. Summer Elective Clinic (4)
Summer intensive clinical course which allows the student to set personal achievement goals for clinical techniques and assists them through the process of skill development.

DENT 4830. Directed Readings, Projects and Research (1-3)
Limited to dental hygiene majors. A maximum of nine hours may be accumulated with this course.

DENT 4890. Advanced Community or Clinical Work Experience (2)
This course is designed to specifically meet the interests and career goals of the student. The student must be licensed to practice dental hygiene at the site in which the work experience will take place or have successfully completed an accredited dental hygiene program. Prerequisite: Acceptance into the BS/DH Program and consent of the instructor.

DENT 4920. Short Courses, Workshops, Institutes and Special Programs (1-4)
Consult the semester class schedule for the current offering under this number. The specific title and credit authorized will appear on the student transcript.

DENT 4990. Seminar (1-2)
Current concepts in dental hygiene for baccalaureate level dental hygiene students.

DEPARTMENT

EMERGENCY CARE AND RESCUE (EMT AND PARAMEDIC)

Department Chair: Jeffrey Grunow, NREMT-P, MSN
Location: Marriott Allied Health Building, Rm 409
Telephone Contact: Kay Van Kampen 801-626-6521
Assistant Professor: Jeff Grunow, MSN, NREMT-P; Instructors: Cynthia L. Belnap, RN, BS; Rebekah Dickinson, ADN, PA; Dave Fluckiger, BS, EMT-P
Medical Advisor: Jon Apfelbaum, M.D.

A paramedic is a person who renders advanced life support to persons at the site of an illness or injury or en route to a hospital facility. They function under the direct supervision of an Emergency Room Physician or Registered Nurse and are certified for such functioning by the Utah State Department of Health.

The two-year applied science degree program in Emergency Care and Rescue (Paramedic) is based on a curriculum designed to provide an academic background in science, health related fields, and communication. The prerequisites provide the general requirements and foundation that prepares the student to meet the demands of the paramedic classes. Satisfactory completion of the prerequisite requirements are required prior to the paramedic application process and include: (1) a ‘C’ or better in Health Science courses or equivalent classes and Medical Terminology; (2) an overall GPA of 2.7 or above; (3) one year experience as an EMT-Basic within the last three years or equivalent.

This program may require more than two years for completion depending upon the timing it takes for an individual to obtain their work experience.

Weber State contracts with authorized agencies to train their employees for paramed certification. Students who successfully complete contracted programs receive a certificate of completion.

EMERGENCY CARE AND RESCUE (PARAMEDIC)

ASSOCIATE OF APPLIED SCIENCE DEGREE (A.A.S.)

Program Prerequisite: Acceptance to the program. See the Admission Requirements listed below.

Grade Requirements: C or better in all courses, with a minimum GPA of 2.7.

Credit Hour Requirements: A total of 60-63 credit hours is required for graduation – 40 of these are required within the program. Three upper division credit hours (courses numbered 3000 and above) are required within the program.

Advisement
Emergency Care and Rescue students must meet with a faculty advisor at least annually for course and program review. Call 801-626-6521 for more information or to schedule an appointment.

Admission Requirements
Students are eligible to apply for admission to the Emergency Care and Rescue (Paramedic) program upon completion of the following:
1. Make application to Weber State University
2. Admissions counseling by a Dumke College of Health Professions advisor
3. Satisfactory completion of the prerequisite requirements
4. Completion of the Paramedic program application form by designated date:
   a. Successful completion of the program EMT-B written assessment exam with a minimum score of 75%
   b. Payment of the $20 application fee
5. Current EMT-Basic Utah certification with verification of experience

General Education
Refer to pages 36-41 for Associate of Applied Science Degree requirements. The following courses required for this program will also fulfill general education requirements: Biomedical core courses (see below), COMM HU2110, PSY SS1010 and SOC SS/DV1020.

Course Requirements for A.A.S. Degree
Prerequisite and Paramedic Courses Required (54 credit hours)
PAR 1000 - 1021 must be satisfied as prerequisites for the Paramedic courses numbered 2000 and above.

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
</tr>
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<tbody>
<tr>
<td>PAR 1000</td>
<td>EMT Basic (2)</td>
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<tr>
<td>PAR 1001</td>
<td>EMT Basic Lab (4)</td>
</tr>
<tr>
<td>PAR 1010*</td>
<td>EMT Intermediate Intro (2)</td>
</tr>
<tr>
<td>PAR 1011*</td>
<td>EMT Intermediate Intro Lab (2)</td>
</tr>
<tr>
<td>PAR 1020*</td>
<td>EMT Intermediate (2)</td>
</tr>
<tr>
<td>PAR 1021*</td>
<td>EMT Intermediate Lab (2)</td>
</tr>
<tr>
<td>PAR 2000</td>
<td>Intro to Paramedic Practice (4)</td>
</tr>
<tr>
<td>PAR 2010</td>
<td>Medical Emergencies (5)</td>
</tr>
<tr>
<td>PAR 2020</td>
<td>Traumatic Emergencies (5)</td>
</tr>
<tr>
<td>PAR 2030</td>
<td>Special Considerations</td>
</tr>
<tr>
<td></td>
<td>in Paramedic Practice (4)</td>
</tr>
</tbody>
</table>

Weber State University 2005 – 2006 Catalog
These classes can be taken through independent study. Call 801-626-6785.

EMT Experience Requirement

EMT-Basic Certification

The Institutional Certificate in EMT-Paramedic requires a minimum of 40 core paramedic credits for completion. Dependent upon what method a student completes the required prerequisites, up to an additional 30 credit hours may be required.

Admission Requirements

Refer to the Admission Requirements on the previous page.

Prerequisite and Paramedic Courses Required for the Institutional Certificate in EMT-Paramedic

EMT-Basic Certification

Current Utah EMT-Basic Certification

or PAR 1000  EMT Basic (2)

& PAR 1001  EMT Basic Lab (4)

EMS Experience Requirement

One year working experience as EMT (working with paramedics) within the last three years or equivalent

or PAR 1005  EMT Basic Field Experience I (3)

& PAR 1006  EMT Basic Field Experience II (3)

or PAR 1010  EMT Intermediate Intro (2)

& PAR 1011  EMT Intermediate Intro Lab (2)

& PAR 1020  EMT Intermediate (2)

& PAR 1021  EMT Intermediate Lab (2)

Prerequisite Courses (Grade of C with a 2.7 GPA required.)

HTHS 1101  Medical Terminology * (2)

HTHS 1115  Biomedical Principles for Institutional Certificate for EMT-Paramedics * (4)

or HTHS 1110/1111 * (8)

or ZOOL 2100/2200 (8)

ENGL 1301  Introduction to Writing (3)

MATH ND0900  First Course in Algebra (3) or equivalent

* These classes can be taken through independent study. Call 801-626-6785.

EMT-Paramedic Core Courses (40 credit hours)

PAR 2000  Intro to Paramedic Practice (4)

PAR 2010  Medical Emergencies (5)

PAR 2020  Traumatic Emergencies (5)

PAR 2030  Special Considerations in Paramedic Practice (4)

PAR 2040  Paramedic Clinical I (4)

PAR 2100  Advanced Paramedic Practice (6)

PAR 2110  Paramedic Clinical II (3)

PAR 2120  Paramedic Internship (9)

EMERGENCY CARE AND RESCUE

INSTITUTIONAL CERTIFICATE

Application for an institutional certificate in EMT-Paramedic are open to all students prepared with the following prerequisites.

The Institutional Certificate in EMT-Paramedic requires a minimum of one year experience as an EMT-Basic is required within the last three years or equivalent

or PAR 1010 (2), PAR 1011 (2), PAR 1020 (2), and PAR 1021 (2). Please call the program for additional details on this requirement.

EMERGENCY CARE AND RESCUE

INSTITUTIONAL CERTIFICATE

Applications for an institutional certificate in EMT-Paramedic are open to all students prepared with the following prerequisites.

The Institutional Certificate in EMT-Paramedic requires a minimum of one year experience as an EMT-Basic is required within the last three years or equivalent

or PAR 1010 (2), PAR 1011 (2), PAR 1020 (2), and PAR 1021 (2). Please call the program for additional details on this requirement.

Admission Requirements

Refer to the Admission Requirements on the previous page.

Prerequisite and Paramedic Courses Required for the Institutional Certificate in EMT-Paramedic

EMT-Basic Certification

Current Utah EMT-Basic Certification

or PAR 1000  EMT Basic (2)

& PAR 1001  EMT Basic Lab (4)

EMS Experience Requirement

One year working experience as EMT (working with paramedics) within the last three years or equivalent

or PAR 1005  EMT Basic Field Experience I (3)

& PAR 1006  EMT Basic Field Experience II (3)

or PAR 1010  EMT Intermediate Intro (2)

& PAR 1011  EMT Intermediate Intro Lab (2)

& PAR 1020  EMT Intermediate (2)

& PAR 1021  EMT Intermediate Lab (2)

Prerequisite Courses (Grade of C with a 2.7 GPA required.)

HTHS 1101  Medical Terminology * (2)

HTHS 1115  Biomedical Principles for Institutional Certificate for EMT-Paramedics * (4)

or HTHS 1110/1111 * (8)

or ZOOL 2100/2200 (8)

ENGL 1301  Introduction to Writing (3)

MATH ND0900  First Course in Algebra (3) or equivalent

* These classes can be taken through independent study. Call 801-626-6785.

EMERGENCY CARE (PARAMEDIC) COURSES - PAR

EMERGENCY MEDICAL TECHNICIAN

EMT BASIC AND INTERMEDIATE CERTIFICATION

Basic

Basic life support, patient assessment and treatment modalities comprise this Basic curriculum. Department of Transportation (DOT) and Utah State Department of Health standards for certification are met.

Required Course (no prerequisites are required)

PAR 1000  EMT Basic (2)

PAR 1001  EMT Basic Lab (4)

Intermediate

Utah State Department of Health and Department of Transportation Standards for intermediate certification are utilized to provide advanced life support to the sick and injured.

Required Courses

The following are to be taken in addition to the courses required for Basic certification.

PAR 1010  EMT Intermediate Intro (2)

PAR 1011  EMT Intermediate Intro Lab (2)

PAR 1020  EMT Intermediate (2)

PAR 1021  EMT Intermediate Lab (2)

EMERGENCY CARE (PARAMEDIC) COURSES - PAR

PAR 1000. Emergency Medical Technician - Basic (2)

This course teaches the student to recognize and instruct the response to emergency calls to provide efficient and immediate care to the critically ill and injured, and deliver transport needs for the patient to the appropriate medical facility. The student will be able to determine the nature and extent of illness or injury and establish priority for required emergency care. Theory will include the emergency medical care to the adult, infant and child, medical, and trauma patients. There are 46 lessons in the core curriculum.

PAR 1001. Emergency Medical Technician - Basic Lab (4)

At the completion of this course the student will be able to demonstrate competency managing emergencies, utilizing all Basic Support equipment and skills in accordance with all behavioral objectives in the current USDOT/EMT Basic curriculum. In addition to the lab, this course requires that the student have patient interactions in a clinical setting. Based on assessment finding, renders emergency medical care to the adult, infant and child, medical, and trauma patients.

PAR 1005. EMT-Basic Field Experience- I (3)

Minimum 120 hours of supervised EMT-Basic patient care experience provided through assigned day shifts on the ambulance and/or pre-hospital setting. A preceptor evaluates basic life support experience provided through assigned day shifts on the ambulance and/or pre-hospital setting.

Elec.

These classes can be taken through independent study. Call 801-626-6785.
knowledge, skills and affective abilities. Prerequisites: PAR 1000/1001 and HTHS 1101, 1110/1111 or 1115 and 70% minimum on EMT-B assessment exam. Department permission required.

PAR 1006. EMT-Basic Field Experience - II (3)
Minimum 120 hours of continued supervised EMT-Basic patient care experience provided through assigned shifts on the ambulance and/or pre-hospital setting. A preceptor evaluates basic life support knowledge, skills and affective abilities. Prerequisites: PAR 1005, ENGL EN1010, and MATH 0960 or 1010.

PAR 1010.* Emergency Medical Technician - Intermediate Introduction (2)
Introduction of Intermediate EMT concepts of basic and advanced life support utilizing cognitive knowledge objects using the State Department of Health and current National Standard EMT-I Curriculum. Application of pre-hospital care will be demonstrated through written assignments and exams. Course may be challenged for credit. Course is required, or equivalent work experience, before admission into the paramedic program. Prerequisite: Must have Basic EMT certification.

PAR 1011.* Emergency Medical Technician - Intermediate Introduction Lab (2)
This course requires clinical hours with an emergency facility and ambulance as scheduled. Application of basic EMT skills involving pre-hospital care with staged and real emergencies and demonstration of psychomotor skills through laboratory, ambulance riding time, and clinical assignments. Clinical activities are adapted to previous documented work experiences. This course may be challenged for credit. This course is required, or equivalent work experience, before admission into the paramedic program. Prerequisite: Must have Basic EMT certification.

* PAR 1010 combined with PAR 1011 will provide a certificate of 60 hours of continuing medical education hours toward recertification requirements for the Utah State Department of Health.

PAR 1020. Emergency Medical Technician - Intermediate (2)
Curriculum includes but is not limited to the US Department of Transportation National Standard Curriculum for the EMT-Intermediate. This course consists of the cognitive knowledge and theory components of the USDOT Curriculum and builds upon the EMT Basic knowledge. State certification eligibility of EMT Intermediate upon successful completion of both PAR 1020 and PAR 1021. Students will demonstrate mastery of cognitive knowledge skills through written assignments and examinations. Course format consists of didactic lecture. Paramedic Program application, faculty review, and committee selection are required to be admitted to this course. Prerequisite: PAR 1011 or equivalent.

PAR 1021. Emergency Medical Technician - Intermediate Lab (2)
Curriculum includes but is not limited to the U.S. Department of Transportation National Standard Curriculum for the EMT-Intermediate. Builds upon the EMT Basic psychomotor skills. State certification eligibility of EMT I upon successful completion of both PAR 1020 and PAR 1021. This course consists of clinical instruction and supervised field experiences in an advanced life support rescue unit which functions under a medical command authority. Students will demonstrate their mastery of the educational psychomotor skills through practical exams and staged and real emergencies. Must have department approval by application process involving an admissions committee final selection. Prerequisite: PAR 1020 or equivalent.

PAR 1030. Pediatric Advanced Life Support (PALS) (1)
Subject and case based approach to American Heart Association protocols and skills required for successful resuscitation of child and infant. The cognitive and psychomotor skills needed to resuscitate and stabilize infants and children in respiratory failure, shock, or cardiopulmonary arrest. Prerequisite: Basic Life Support course completion card.

PAR 1031. Advanced Cardiac Life Support (ACLS) (1)
Subject and case based approach to American Heart Association protocols and skills required for successful resuscitation of the adult. This course is designed to help all participants succeed in acquiring the cognitive knowledge psychomotor skills needed by medical professionals in adult resuscitation attempts.

PAR 2000. Introduction to Paramedic Practice (4) F, S*
Introduces the paramedic student to basic patient interaction and assessment skills. Includes professional considerations for the individual practitioner and patient. Must complete department application process and be accepted to program prior to registration. PAR 1006 may be used as a prerequisite for PAR 2000.

PAR 2010. Medical Emergencies (5) F, S*
Prepares the student to recognize medical emergencies, the appropriate patient care modalities, and functions of the paramedic in practice. Prerequisites: PAR 2000.

PAR 2020. Traumatic Emergencies (5) F, S
Prepares the Student to recognize traumatic emergencies, the appropriate patient care modalities, and functions of the paramedic in practice. Prerequisites: PAR 2000.

PAR 2030. Specialized Interventions in Paramedic Practice (4) F, S
Course provides understanding of the essentials related to special challenges to paramedic practice such as neonatology, pediatrics, obstetrics, geriatrics and acute interventions for the chronic care patient. Operations with medical incident command, rescue awareness, hazardous materials incidents, and crime scene awareness are included. Prerequisites: PAR 2000.

PAR 2040. Paramedic Clinical Lab I (4) F, S
Clinical application of the theory of paramedic practice. Students must pass all skills before advancing into clinical rotations. Prerequisites: PAR 2000.

PAR 2100. Advanced Paramedic Practice (6) F, S*
Pathophysiology and advanced concepts applied to recognition of patient problems and treatment modalities. Student research and projects are designed to meet professional goals and experiences. Prerequisites: PAR 2000, 2010, 2020, 2030, 2040.

PAR 2110. Paramedic Clinical II (3) F, S
Clinical rotations in various medical settings provide the student with the opportunity to perform skills and apply knowledge of paramedic practice. Includes, but not limited to, areas in operating room, emergency department, labor and delivery, and pediatrics. Prerequisites: PAR 2000, 2010, 2020, 2030, 2040.

PAR 2120. Paramedic Internship (9) F, S
Rotations with various paramedic agencies provide rescue vehicle response to advance the skills and performance of Paramedic practice. Successful evaluation of professionalism, interpersonal relationships, skills, and knowledge must be completed for recommendation of certification. Prerequisites: PAR 2000, 2010, 2020, 2030, 2040.
DEPARTMENT

HEALTH SCIENCES

Department Chair: Dr. Marie Kotter
Location: Marriott Allied Health Building, Rm 109A
Telephone Contact: Debra Boswell 801-626-6505
Professors: Craig Gundy, Marie Kotter; Associate Professor: Robert C. Soderberg; Assistant Professor: Kraig Chugg, Curtis DeFriez;
Instructor: Louise Tate; Adjunct Faculty: Cathryn Clayton, Shelley Conroy, LeAnne Gundy, Kathryn Newton, Roger Nichols, Brent Richardson

HEALTH SCIENCES CORE COURSES - HTHS

HTHS 1001. A Case Study Approach to the Health Sciences (2)
A Case Study Approach to the Health Sciences is a WSU Online course designed for students wishing to explore professional career paths using case study models. Each case study focuses on a disease process. Progression through each case study involves a review of anatomy and physiology, pathophysiology, medical terminology, and a study of health professionals including their educational and training requirements. Additionally, the student will explore key medical diagnostic tests (e.g. laboratory, imaging) used in patient disease diagnosis, management and prevention. The course emphasizes the importance of the team approach to patient care. Open to concurrent enrollment students only.

HTHS 1101. Medical Terminology (2) F, S
Medical terms of Greek and Latin origin. Designed for the pre-professional and workers in health related fields.

HTHS 1105. Technology Enhanced Anatomy & Physiology (4) F
This course teaches fundamentals of human anatomy and physiology that are required for further studies in nursing, allied health, and related disciplines. It is designed to be offered in a technology-enhanced environment (via Ednet to off-campus sites). Four hours of Ednet and two hours of laboratory/recitation per week.

HTHS 1106. Technology Enhanced Anatomy & Physiology (continued) (4) S
Prerequisite: HTHS 1105. Four hours of Ednet and two hours of laboratory/recitation per week.

HTHS 1108. Biocalculations for Health Professions (5)
Fundamental mathematical concepts using health professions applications will be taught. Topics include: basic arithmetic, pre-algebra, beginning algebra, geometry, and statistics applied to solutions, dosage calculations, electrolytes, acid base balance, circulatory and urinary function, pulmonary function testing and energy and metabolism. This course does not meet the University's quantitative literacy requirement.

HTHS LS1110. Biomedical Core Lecture/Lab (4) Su, F, S
An integrated presentation of the basic concepts of physics, chemistry, human anatomy, human physiology and medical microbiology as related to humans. Biomedical Core is global and interdisciplinary while remaining introductory. Three lecture demonstrations per week. Two lab hours per week.

HTHS 1110. Biomedical Core Lecture/Lab (continued) (4) Su, F, S
Prerequisite: HTHS 1110. Three lecture demonstrations per week. Two lab hours per week.

HTHS 1111. Biomedical Principles for Certificate of Completion for Paramedics (4)
Basic biomedical principles essential for effective administration of emergency health care in field-based situations. A WSU Online course required for students who are applying to the Emergency Care and Rescue Program. This course is designed to meet the Anatomy and Physiology prerequisite for the Institutional Certificate in Paramedic.

HTHS 1130. Common Medicines (3) F, S
This is an introductory course and will provide information regarding proper drug usage for persons without significant backgrounds in the Biological Sciences. The course primarily discusses over-the-counter medicines as well as prescription drug groups which are commonly used by the public. The overall objective will be to provide information in such a way that individuals are more aware of possible drug-related problems, able to make wise and appropriate choices, and become well-informed consumers.

HTHS 2230. Introductory Pathophysiology (3) Su, F, S
An introduction to the nature of disease and its effect on body systems. Prerequisite: Completion of anatomy and physiology courses with a grade of "C" or better.

HTHS 2231. Introductory Pathophysiology Laboratory (1)
Laboratory and computer exercises involving analysis of both clinical and laboratory data. Students evaluate signs, symptoms, diagnosis and treatment of various pathological conditions and diseases. One two-hour laboratory per week. Co-requisite: HTHS 2230.

HTHS 2240/3240. Introduction to Pharmacology (3)
Introductory pharmacology course which covers pharmacological principles including modes of action, uses, modes of excretion, and patient side effects of various drug classes. The drugs are presented in a "system approach" with emphasis on medications utilized in diagnosing and treating diseases associated with the various body systems. Class format includes a 3 hour lecture class with students participating in oral presentations and case studies. Students taking the 3240 course for upper division will also be required to write a 10 page paper on an application of pharmacological principle applied to a drug class. Students taking HTHS 2240 cannot take HTHS 3240 for credit. Recommended Prerequisites: HTHS 1101, HTHS 1110 and HTHS 1111.

HTHS 3328. Pathophysiology of Cells and Tissues (2) F, S
Biological interactions among cellular injuries, genetic disorders, neoplasia, and inflammatory and immune disorders. HTHS 3328 can be taken concurrently with HTHS 3329. (It may be taken without 3329.) Prerequisite: HTHS LS1110 with a grade of "C" or better or an equivalent course in anatomy and physiology. W SU Online class only.

HTHS 3329. Pathophysiology of Organs and Systems (2) F, S
Interpretation of disease pathogenesis and pathological symptoms. HTHS 3329 can be taken concurrently with HTHS 3328. (It may be taken without 3328.) Prerequisite: HTHS LS1110 with a grade of "C" or better or an equivalent course in anatomy and physiology. W SU Online class only.

HTHS 4010. Interdisciplinary Health Care Teams (3)
This course provides an interdisciplinary experience with the team concept as a priority. The students learn the role of the health care team members, each with their different skills and objectives. The course teaches students to practice an interdisciplinary approach as they research, interact and learn in the interdisciplinary environment of a health care setting. Cross-listed with DENT and NRSG.
The Health Administrative Services Program (HAS) provides an opportunity for health practitioners, students in the health disciplines, and others to prepare themselves for healthcare management, healthcare information, and healthcare promotion roles in both traditional and nontraditional health care settings. In addition, many students use the program to prepare themselves for graduate studies in health administration and other related disciplines. The program is uniquely structured to help practicing health professionals build upon their two year professional degree or credential while at the same time accommodating the more traditional four-year student. The curriculum is organized so that students may tailor their studies in any of one of five emphases: Health Services Administration, Health Information Management (HIM), Health Promotion, Long-Term Care Administration, and Health Information Technology. All study emphases lead to a Bachelor of Science degree except for Health Information Technology, which offers an Associate of Applied Science degree. The HAS program was developed to better prepare health practitioners and others to take advantage of the challenges and opportunities facing them as members of the nation’s health care team.

Study Emphases

- **Health Services Administration**: Designed to provide health care practitioners and others with the skills and competencies to function as supervisors and managers in health care settings. In the changing health care environment, new and challenging demands are placed on health care personnel to expand their conventional roles to include increased administrative responsibilities. The HSA curriculum provides a working foundation in management and interpersonal skills, while at the same time introducing the student to the health care delivery system and its many and varied issues and challenges. Graduates are not only better prepared to assume increased management responsibilities, but to do so with a better understanding of the complex system in which they work.

- **Health Promotion**: The major purpose of the health promotion program is to professionally prepare students for employment in programs that promote health and prevent disease. Coursework emphasizes the development of skills required of the entry-level health educator: assessing needs, planning effective programs, implementing programs, evaluating effectiveness of programs, coordinating services, acting as a resource person, and communicating needs and concerns. Successful program completion may lead to employment in the community (health agencies, public health departments, community action projects), health care system (hospitals, clinics, student health clinics, long-term care, rehabilitation) or in the work place (business, industry, consulting).

- **Health Information Management**: This profession focuses on health care data and the management of health care information resources. The profession addresses the nature and structure of health data and the translation of that data into usable forms of information which support the health care of individuals and populations. HIM professionals collect, integrate, and analyze primary and secondary collections of data and manage information resources related to the research, planning, provision, and evaluation of health care services. This emphasis provides students with the knowledge and skills necessary to become self-directed learners who possess critical-thinking skills and problem-solving abilities, communication and interpersonal skills, a commitment to life-long learning, and important ethical values. The program fosters the acquisition of leadership abilities and systems thinking necessary for adapting careers within a changing health care environment. The HIM emphasis is accredited by the American Health Information Management Association in conjunction with the Commission on Accreditation of Allied Health Education Programs, making students eligible to write the national credentialing exam of the AHIMA, the Registered Health Information Administrator.

- **Long-Term Care Administration**: Prepares students to function as administrators in nursing homes and other long-term care facilities. The curriculum is designed to provide students with a foundation in management principles and human relations, introduce them to the long term care field, and give them operational experience in nursing home management. To function as an administrator in long-term care, one must be licensed. For licensure, most states require the completion of a bachelor's degree in health administration or a related area, an extensive administrative internship, and the successful passing of an examination offered by the National Board of Examiners for Nursing Home Administrators.

- **Health Information Technology**: Health information technicians perform the essential functions of maintaining health data and records in acute, long-term, and ambulatory health care settings. Opportunities also exist in related health care settings, e.g., insurance companies, medical clinics, computer software vendors, and health maintenance organizations. These functions include, but are not limited to: the coding of diseases and operations; maintaining statistics; transcribing medical reports; performing DRG and utilization review procedures; and supervising employees. The program is accredited by the Commission on Accreditation of Allied Health Education Programs in cooperation with the American Health Information Management Association. Successful completion of the Health Information Technology two-year program leads to an Associate of Applied Science degree and the student is then eligible to sit for the national certifying exam. Students passing this national examination may use the professional designation of Registered Health Information Technician.

**Health Administrative Services**

**GRADUATE INSTITUTIONAL CERTIFICATE**

- **Program Prerequisite**: Applicants must possess a bachelor’s degree from a regionally accredited institution and be accepted into the certificate program. Completion of courses in statistics, accounting and economics are required for enrollment in certificate courses. Students are expected to be competent in use and manipulation of spreadsheet, word-processing and presentation software.

- **Grade Requirements**: To receive a certificate the student must complete all courses in the certificate program with a grade of ‘C’ or higher, and maintain an overall program GPA of 2.7 or higher.

- **Credit Hour Requirements**: 15 credit hours as specified below.

**Course Requirements for Institutional Certificate**

**Required Courses (15 credit hours)**

- HAS 6000 Health Systems and the Healthcare Economy (3)
- HAS 6200 Health Behavior and Managerial Epidemiology (3)
- HAS 6300 Quality Improvement and Risk Management in Health Services Organizations (3)
**Health Administrative Services**

**Bachelor Degree (B.S.)**

- **Program Prerequisite:** Health Information Management
  Emphasis requires previous completion of A.A.S. in Health Information Technology or equivalent. Health Services Administration, Long-Term Care Administration and Health Promotion emphases have a set of course prerequisites which are expected to be completed prior to declaration of those majors. See the list of prerequisites in the course requirements discussed for each emphasis below.

- **Minor:** Not required.

- **Grade Requirement:** A grade of "C" or better in courses required for all emphases (a grade of "C-" is not acceptable), in addition to a minimum cumulative GPA of 2.50.

- **Credit Hour Requirements:** A total of 120 credit hours is required for graduation. A total of 40 upper division credit hours is required (courses numbered 3000 and above). Please see requirements under emphases as discussed below.

**Advisement**

Students are encouraged to meet with a faculty advisor annually for course and program advisement. Call 801-626-7242 for more information or to schedule an appointment.

**Admission Requirements**

 Declare your program of study (see page 18). In addition, the following steps are required:

1. Schedule an appointment for academic advisement with a member of the Department of Health Administrative Services faculty.
2. Make application to the program and the Dr. Ezekiel R. Dumke College of Health Professions.

Overall GPA of 2.5 is required.

**General Education**

Refer to pages 36-41 for Bachelor of Science requirements. Some of the courses required by this program may also fulfill general education and scientific inquiry requirements. Check with a department advisor if you have questions.

**Course Requirements for B.S. Degree**

- **Health Services Administration Emphasis**

  **Prerequisite Courses Required**

  The following prerequisite courses must be completed prior to enrollment in required courses of the program.

  - HAS 3000 The Health Care System (2)
  - HTHS 1101 Medical Terminology (2)
  - HTHS LS1110/1111 Biomedical Core (8)
  - or ZOOL LS1020 Human Biology (3)
  - ACTG 2010 Survey of Accounting I (3)
  - ECON SS2010 Principles of Micro-Economics (3)
  - ENGL EN2010 and ENGL EN2010 Writing (6)
  - Quantitative Literacy (see General Education Core Requirements)
  - Computer & Information Literacy (see General Education Core Requirements)

  **Health Services Administration Emphasis**

- **Required Courses (37-41 credit hours)**

  - HAS 3020 Health Care Marketing (3)
  - HAS 3150 Community Health Agencies and Services (3)
  - HAS 3230 Health Communication (3)
  - HAS 3240 Human Resource Development in Health Care (3)
  - HAS 3260 Health Care Administrative & Supervisory Theory (3)
  - HAS 3750 Health Care Financial Administration (3)
  - HAS 4320 Health Care Economics and Policy (3)
  - HAS 4400 Legal and Ethical Aspects of Health Administration (3)
  - HAS 4740 Senior Seminar (1)
  - HAS 4860 Practicum/Internship (2-6)
  - or HIM 4990 Baccalaureate Thesis & Presentation (3)
  - HIM 2330 Classification Systems (3)
  - Topics & Reimbursement Issues (2)
  - HIM 3010 Info Technologies in Healthcare Management (2)
  - HIM SI3200 Epidemiology & Biostatistics (3)
  - HIM 3300 Intro to Quality Improvement in Health Care (3)

- **Elective Courses (6 credit hours required)**

  - HAS DV3190 Cultural Diversity in Patient Education (3)
  - HAS 4410 Clinical Instructional Design & Evaluation (3)
  - HAS 4420 Clinical Instructional Skills (3)
  - HAS 4520 Long-Term Care Administration (2)
  - HAS 4525 Health Facility Operations (1)
  - HAS 4620 International Health and Health Care (3)
  - HAS 4800 Individual Study (1-3)
  - HAS 4990 Seminar (1-3)
  - HTHS 2230 Introductory Pathophysiology (3)

- **Health Promotion Emphasis**

  Graduates of the program are eligible to sit for the examination for certification as a Certified Health Education Specialist (CHES) with a minimum of 25 semester hours in Health Courses. Health courses are described in the Jerry and Vickie Moyes College of Education.

  **Prerequisite Course Required (6-11 credit hours)**

  - HTHS SS1020 Healthy Lifestyles (3)
  - HTHS LS1110/1111 Biomedical Core Lecture/Lab (8)
  - or ZOOL LS1020 Human Biology (3)

  **Courses Required (31 credit hours)**

  - HTHS 3000 Foundations of Health Promotion (3)
  - HTH 3200* Methods Health Education (3)
  - HTH 54013 Health Promotion Research & Assessment (3)
  - HTH 4150 Needs Assessment & Planning (3)
  - HTH 4860 Field Experience (3)
  - HTH 4990 Senior Seminar (1)
  - HAS 3000 The Health Care System (2)
  - HAS/HTTH 3150 Community Health Agencies & Services (3)
  - HAS DV3190 Cultural Diversity in Patient Education (3)
  - or HTHS DV3420 Multicultural Health & Nutrition (3)
  - HAS 3230 Health Communication (3)
  - HIM SI3200 Epidemiology & Biostatistics (3)

  **Professional Block**

  Minimum of 9 credit hours, must be approved by advisor. These courses may also be used as electives.

  - HTHS 2400 Art of Emotional Wellness (3)
  - HTHS 2700 Consumer Health (3)
  - HTHS 3100 Applications of Technology in Health Promotion (3)
The following prerequisite courses must be completed prior to enrollment:

**Prerequisite Courses Required**

- Previous completion of Health Information Technology

**Support Courses Required (7 credit hours)**

- HLTH 3160 Health Behavior & Special Populations (3)
- HAS 3020 Health Care Marketing (3)
- HAS 3260 Health Care Administration & Supervisory Theory (3)
- HAS 4320 Health Care Economics and Politics (3)

**Elective Courses (15 credit hours)**

- AT 3600 Ergonomics for Health and Safety (3)
- HLTH 1110 Stress Management (3)
- HLTH 1300 First Aid: Responding to Emergencies (2)
- HLTH 2300 Emergency Response (3)
- HLTH 3050 School Health Program (3)
- HLTH 3400 Substance Abuse Prevention (3)
- HLTH 3500 Human Sexuality (3)
- HLTH 4220 Women’s Health Issues (3)
- HLTH 4250 Contemporary Health Issues of Adolescents (2)
- HLTH 4420 Health/Nutrition Older Adult (3)
- HLTH 4800 Individual Projects (1-3)
- HLTH 4860 Field Experience (3)
- HLTH 4920 Workshops (1)
- HLTH/NUTR LS1020 Foundations in Nutrition (3)
- HAS 3240 Human Resource Development in Health Care (3)
- HAS 4400 Legal and Ethical Aspects of Health Administration (3)
- HAS 4410* Clinical Instructional Skills (3)
- HAS 4420 Clinical Instructional Skills (3)
- HTHS 1101 Medical Terminology (2)
- HTHS 2230 Introductory Pathophysiology (3)
- GERT 3000 Death and Dying (3)
- NUTR 2320 Food Values, Diet Design & Health (3)
- NUTR 3020 Nutrition & Fitness (3)
- PE 2300 Health/Fitness Evaluation and Exercise Prescription (3)

HAS 4410 may be substituted for HLTH 3200.

**Core Courses Required (40-44 credit hours)**

- HAS 3020 Health Care Marketing (3)
- HAS 3150 Community Health Agencies & Services (3)
- HAS 3230 Health Communication (3)
- HAS 3240 Human Resource Development in Health Care (3)
- HAS 3260 Health Care Administrative & Supervisory Theory (3)
- HAS 3750 Health Care Financial Administration (3)
- HAS 4320 Health Care Economics and Policy (3)
- HAS 4400 Legal and Ethical Aspects of Health Administration (3)
- HAS 4520 Long-Term Care Administration (2)
- HAS 4525 Health Facility Operations (1)
- HAS 4740 Senior Seminar (1)
- HAS 4860 Practicum/Internship (2-6)
- or HIM 4990 Baccalaureate Thesis & Presentation (3)
- HIM 2330 Classification Systems Topics & Reimbursement Issues (2)
- HIM 3010 Info Technologies in Healthcare Management (2)
- HIM SI3200 Epidemiology & Biostatistics (3)
- HIM SI3300 Intro to Quality Improvement in Health Care (3)

**Elective Courses (6 credit hours)**

- HAS DV3190 Cultural Diversity in Patient Education (3)
- HAS 4410 Clinical Instructional Design & Evaluation (3)
- HAS 4420 Clinical Instructional Skills (3)
- HAS 4620 International Health and Health Care (3)
- HAS 4800 Individual Study (1-3)
- HAS 4990 Seminar (1)
- HTHS 2230 Introductory Pathophysiology (3)
- GERT 2220 Intro to Social Gerontology (3)
- GERT 3000 Death & Dying (3)
- GERT 3120 Aging: Adaptation & Behavior (3)

**Health Administrative Services MINOR**

**Course Requirements for Minor**

- Health Services Administration Emphasis

**Required Courses (17 credit hours)**

- HAS 3000 Health Care System (2)
- HAS 3020 Health Care Marketing (3)
- HAS 3230 Health Communication (3)
- HAS 3240 Human Resource Development in Health Care (3)
- HAS 3260 Health Care Administrative & Supervisory Theory (3)
- HAS 4400 Legal and Ethical Aspects of Health Administration (3)
Elective Courses (5 credit hours required)
HAS 3150 Community Health Agencies and Services (3)
HAS 3190 Cultural Diversity in Patient Education (3)
HLTH 3150 Community Health Agencies and Services (3)
HLTH 3000 Foundations of Health Promotion (3)
HLTH 3200* Methods in Health Education (3)
HLTH 4150 Needs Assessment & Planning

Health Promotion Emphasis

Required Courses (15 credit hours)
HAS 3000 The Health Care System (2)
HAS 3150 Community Health Agencies and Services (3)
HLTH 3150 Community Health Agencies and Services (3)
HLTH 3000 Foundations of Health Promotion (3)
HLTH 3200* Methods in Health Education (3)
HLTH 4150 Needs Assessment & Planning

Elective Courses (6 credit hours minimum)
HLTH LS1020 Foundations in Nutrition (3)
HLTH 1110 Stress Management (3)
HLTH 1300 First Aid: Responding to Emergencies (3)
HLTH 2700 Consumer Health (3)
HLTH 3400 Substance Abuse Prevention (3)
HLTH DV3420 Multicultural Health & Nutrition (3)
HLTH 3500 Human Sexuality (3)
HLTH 4220 Women’s Health Issues (3)
HLTH 4250 Contemporary Health Issues of Adolescents (2)
HLTH 4420 Health & Nutrition in the Older Adult (3)
HLTH 4800 Individual Projects (1-3)
HLTH 4860 Field Experience (2-6)
HAS 3020 Health Care Marketing (3)
HAS 3240 Human Resource Development in Health Care (3)
HAS 3260 Health Care Administrative & Supervisory Theory (3)
HAS 4320 Health Care Economics and Policy (3)
HAS 4400 Legal and Ethical Aspects of Health Administration (3)
HAS 4410* Clinical Instructional Design & Evaluation (3)
HAS 4420 Clinical Instructional Skills (3)
HAS 4620 International Health & Health Care (3)
HIM SI3200 Epidemiology & Biostatistics (3)

Health Information Technology

Health Information Technicians perform the essential functions of maintaining health data and records in acute, long-term, and ambulatory health care settings. Opportunities also exist in related health care settings, e.g., insurance companies, medical clinics, computer software vendors, and health maintenance organizations. These functions include, but are not limited to, the coding of diseases and operations, maintaining statistics, transcribing medical reports, performing DRG and utilization review procedures, supervising employees.

In addition to classroom and laboratory course work, students participate in a supervised clinical experience in a hospital medical record department or other health information environment.

The Health Information Technology program is accredited by the Commission on the Accreditation of Allied Health Education Programs, in cooperation with the American Health Information Management Association.

Successful completion of the Health Information Technology two-year program leads to an associate of applied science degree and the student is then eligible to sit for the national accrediting exam. Students passing this national examination may use the professional designation Registered Health Information Technician.
General Education
Refer to see pages 36-41 for Associate of Applied Science requirements.

Course Requirements for A.A.S. Degree

Health Information Courses Required (24 credit hours)

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>HIM 2000</td>
<td>Intro to Health Information</td>
<td>4</td>
</tr>
<tr>
<td>HIM 2200</td>
<td>Security, Privacy, Data</td>
<td>3</td>
</tr>
<tr>
<td>HIM 2300</td>
<td>Diagnosis Coding</td>
<td>3</td>
</tr>
<tr>
<td>HIM 2320</td>
<td>Ambulatory &amp; Physician Office Coding</td>
<td>3</td>
</tr>
<tr>
<td>HIM 2330</td>
<td>Classification Systems Topics</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>&amp; Reimbursement Issues</td>
<td>2</td>
</tr>
<tr>
<td>HIM 2861</td>
<td>(2nd Year) Professional Practice Experiences</td>
<td>2</td>
</tr>
<tr>
<td>HIM 2862</td>
<td>(2nd Year) Professional Practice Experiences</td>
<td>2</td>
</tr>
<tr>
<td>HIM 3010</td>
<td>Info Technology in Health Care Management</td>
<td>2</td>
</tr>
<tr>
<td>HIM 3300</td>
<td>Intro to Quality Improvement in Health Care</td>
<td>3</td>
</tr>
</tbody>
</table>

Support Courses Required (30 credit hours)

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>HTHS 1101</td>
<td>Medical Terminology</td>
<td>2</td>
</tr>
<tr>
<td>HTHS LS1110</td>
<td>Biomedical Core</td>
<td>4</td>
</tr>
<tr>
<td>HTHS 1111</td>
<td>Biomedical Core</td>
<td>4</td>
</tr>
<tr>
<td>HTHS 2230</td>
<td>Intro to Pathophysiology</td>
<td>3</td>
</tr>
<tr>
<td>HTHS 2240</td>
<td>Intro to Pharmacology</td>
<td>3</td>
</tr>
<tr>
<td>HAS 3000</td>
<td>The Health Care System</td>
<td>2</td>
</tr>
<tr>
<td>HAS 3260</td>
<td>Health Care Administrative</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>&amp; Supervisory Theory</td>
<td>3</td>
</tr>
<tr>
<td>HAS 4400</td>
<td>Legal &amp; Ethical Aspects of Health Administration</td>
<td>3</td>
</tr>
<tr>
<td>TBE TE1700</td>
<td>Microcomputer Applications</td>
<td>3</td>
</tr>
<tr>
<td>MATH QL1030</td>
<td>Contemporary Mathematics</td>
<td>3</td>
</tr>
<tr>
<td>or HIM SI3200</td>
<td>Epidemiology &amp; Biostatistics</td>
<td>3</td>
</tr>
</tbody>
</table>

Course Requirements for Institutional Certificate

Courses Required (21 credit hours)

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>HTHS 1101</td>
<td>Medical Terminology</td>
<td>2</td>
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<tr>
<td>HIM 2330</td>
<td>Classification Systems Topics</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>&amp; Reimbursement Issues</td>
<td>2</td>
</tr>
</tbody>
</table>


HEALTH ADMINISTRATIVE SERVICES COURSES - HAS

HAS 3000. The Health Care System (2) F, S
A study of the U.S. healthcare system to help students understand the critical issues facing healthcare in its ever-changing environment and to gain a sense of the complex multidimensional nature of healthcare delivery in the United States.

HAS 3020. Health Care Marketing (3) Su, F, S
This course outlines the application of marketing principles to health care organizations and the public health arena. Students will apply those principles in the development of a marketing plan.

HAS 3150. Community Health Agencies and Services (3) Su, F, S
An overview of public and community health including history, management, prevention and epidemiology of disease. Emphasis on the role of community and government health agencies regarding health promotion and disease prevention activities.

HAS DV3190. Cultural Diversity in Patient Education (3) F, S
This course is an introduction to patient or client education skills and theory. It also focuses on health traditions of culturally diverse clients and how those traditions must be considered during effective patient education. In particular, the course will move from the general health traditions of world populations and religions, to the more specific behaviors and expectations of U.S. populations. Gender, age, and class will all be considered in the studies.

HAS 3230. Health Communication (3) F, S
A broad examination of communication theory, application, and research in health care delivery and management. Examines many different levels and channels of communication including the development and application of interpersonal communication, small group communication and teamwork, organizational communication, communication ethics, leadership, and motivation skills in dealing with health care providers, staff, and consumers in a variety of health care environments. Cross-listed with COMM 3230.

HAS 3240. Human Resource Development in Health Care (3) F, S
Study of human resource principles and practices in Health Care facilities. The general topics include: job analysis and work flows, compensation, recruitment and selection, performance appraisals, discipline, legal environment, unions, safety and health.

HAS 3260. Health Care Administrative and Supervisory Theory (3) Su, F, S
Basic theories and concepts of management. Emphasis is on individual and group behavior, interpersonal skills, decision making, leadership theory, planned change, motivation, teamwork, organizational design and culture within the context of the health care organization.
HAS 3750. Health Care Financial Administration (3) S
This course is designed to build upon the concepts introduced in basic accounting courses and develop proficiency in applying administrative financial techniques in health care decision making. Prerequisites: ACTG 2010, Quantitative Literacy, HIM SIS200.

HAS 4320. Health Care Economics and Policy (3) F, S
Discussion and analysis of the economic models controlling healthcare markets with subsequent investigation of the complex federal, state, and local policies and policymaking processes which result from those models in U.S. healthcare systems. Prerequisites: HAS 3750 and ECON SS2010.

HAS 4400. Legal and Ethical Aspects of Health Administration (3) F, S
Review of legal responsibilities of physicians, other healthcare workers, and healthcare institutions and means by which health-related laws and regulations are developed and implemented. Issues involved in healthcare professional ethics are discussed and evaluated. Prerequisite: HAS 3260.

HAS 4410. Clinical Instructional Design and Evaluation (3) F
Designed to provide individuals with the skills necessary for the preparation, planning and evaluation of instruction. The philosophy, theory, and effective methods and techniques of teaching the adult learner.

HAS 4420. Clinical Instructional Skills (3) S
Designed to provide individuals with skills necessary for the implementation of instruction. Presentation practice is provided with peer evaluation and feedback.

HAS 4520. Long-Term Care Administration (2) S
Application of health administration core curriculum to specific practice issues in the long-term care setting. Setting-specific organization structures, relationships with healthcare providers, services offered, financial management issues, and regulatory issues are investigated. Prerequisite: HAS 4400.

HAS 4525. Health Facility Operations (1) S
A review of long-term care facility operations utilizing computer-based simulations. Teams of students make operational decisions utilizing financial statements, census reports, staffing schedules and other relevant factors. Prepares students for specific types of situations and questions encountered on the long-term care administrator licensing examination. Prerequisite: HAS 4520.

HAS 4620. International Health and Health Care (3) S
This course is designed to explore health and health care systems in countries other than the United States. Emphasis will be directed toward illnesses and treatments, health promotion, environmental and economic issues, governmental infrastructures that support health, and cultural considerations. The course will be targeted to the professional interested in international health information and experiences.

HAS 4740. Senior Seminar (1) F, S
A capstone course for seniors designed to provide integration and application of theory through the use of case study analysis. Departmental approval required.

HAS 4800. Individual Study (1-3) Su, F, S
Topics in allied health education studies tailored to the particular needs and interests of the student. Class may be repeated with program approval.

HAS 4860. Practicum/Internship (2-6) Su, F, S
Provides opportunities for observation, participation and practical application of administrative and management skills in the institutional setting. Departmental approval required.

HAS 4990. Seminar (1) F, S
Topics, issues, and trends in Health Care. May be repeated with program approval.

HEALTH ADMINISTRATIVE SERVICES
GRADUATE COURSES - HAS

HAS 6000. Health Systems & the Healthcare Economy (3)
In-depth analysis and synthesis of all aspects of the health care delivery system emphasizing improvement of health care delivery and access. Examines the complex organizational dynamics and structures that predicate the interaction among major components of the U.S. health care system, including service provider settings in which care is provided. The course surveys the funding systems and regulatory structures for financing healthcare delivery and resource management in health services organizations. Current reform debates will be challenged. Prerequisite: Acceptance into the certificate program.

HAS 6200. Health Behavior & Managerial Epidemiology (3)
The course addresses the integration of epidemiology into strategic planning and managerial decision-making in health services organizations. Epidemiological principles and tools of investigation from clinical and managerial perspectives are addressed. Course work includes environmental analysis of health behaviors and lifestyle that impact demand on health care delivery systems. The student will evaluate models for integration of health services, preventive programs, demand management, and policy issues affecting continuity of care. Concurrent enrollment in HAS 6000 or Instructor Approval.

HAS 6300. Quality Improvement and Risk Management in Health Services Organizations (3)
A study of the effects of sophisticated quality and health outcome measures as used by individuals, employers and insurers to compare the results of various providers. The course will cover the forces of the smarter external customers and internal pressures to justify costs, continuous quality improvement, risk management, and changes demanding creative health care marketing techniques. Course content will include JCAHO and NCQA accreditation standards and processes, Life safety and fire code requirements, and handling of biohazards such as blood borne pathogens. Prerequisite: HAS 6000 or Instructor Approval.

HAS 6400. Strategic Health Planning and Creative Leadership (3)
The course content emphasizes visionary leadership and the principles and processes of comprehensive health planning and analysis. Leadership of diverse healthcare professionals in complex organizational structures is addressed. Various planning approaches, styles and theories are considered from a corporate decision-making perspective within the unique governance structures of health service organizations. Issues covered include strategic planning and resource allocation within integrated health systems. Environmental analysis explores national health care delivery policy, unique financing structures such as third party payment systems, and open vs. regulated markets. Prerequisite: HAS 6000 or Instructor Approval.

HAS 6500. Health Administrative Services Capstone (3)
A capstone course designed to integrate the knowledge gained in other graduate courses into an applied management project. The project will have enterprise-wide applicability to a health services organization. The student will develop and present a deliverable product that could be implemented by management to improve their organizational performance, specifically with analysis and recommendations for policy and strategic improvements. Prerequisites: HAS 6000, HAS 6200, HAS 6300, HAS 6400.
HEALTH INFORMATION MANAGEMENT COURSES - HIM

HIM 2200. Security, Privacy, Data Collection & Management (3) S
Application of the health information statistical systems that are commonly maintained in medical record departments: vital statistics, census systems, discharge systems, commonly computed rates and percentages, uniform hospital discharge data set, and computer applications. Prerequisite: HIM 2300 or equivalent.

HIM 2300. Diagnosis Coding (3) F
ICD-9-CM and CPT classification, conventions and coding procedures are introduced and practiced. Prerequisite: HIM 2210 or equivalent.

HIM 2320. Ambulatory and Physician Office Coding (3) S
CPT classification, conventions and coding procedures are introduced and practiced. Abstracting medical information from health documentation for coding facility outpatient, physician and professional billing is presented, discussed and practiced. Prerequisite: HIM 2300.

HIM 2810. (Second Year) Professional Practice Experiences (2) F
Student's final experience in the health care setting. Skills and learning from the classroom and laboratory are reinforced and practiced. The student observes in other health care settings. Projects assigned give the student expertise in technical functions, e.g., ICD-9-CM, CPT, and other coding systems. Prerequisite: HIM 2800.

HIM 2861. (Second Year) Professional Practice Experiences (2) S
Student's final experience in the health care setting. Skills and learning from the classroom and laboratory are reinforced and practiced. The student observes in other health care settings. Projects assigned give the student expertise in technical functions, e.g., ICD-9-CM, CPT, and other coding systems. Prerequisite: HIM 2800.

HIM 3000. Computer Applications in Health Care (3) F
A survey of the clinical, research, and administrative applications of computers in the health care industry from which health care information is currently derived. The role of this technology and of the data collected in accomplishing the objectives and procedures of the principle functional areas in health care organizations is emphasized as are the interrelationships of the organizational units with respect to data acquisition, storage, analysis, retrieval, and use.

HIM 3010. Information Technology in Healthcare Management (2) S
An overview of information technology issues and management for healthcare managers. Healthcare computer applications, infrastructur planning, IS organizational structure, IT procurement, systems analysis, and evaluation are presented and discussed.

HIM 3050. Health Information Structures (3) S
In-depth study of the structures of health care information, i.e. clinical information structures such as clinical data sets and severity of illness indices, health record structures in computer-driven formats, administrative structures for purposes of case-mix analysis, clinical correlation, and analysis of utilization patterns, financial structures necessary to the business management of health care organizations, and disease/operations classification systems structures necessary to reimbursement and epidemiological data collection and analysis. Prerequisite: HIM 3000.

HIM 3100. Introduction to Health Care (3) F, S
Course introduces standard terminologies and procedures for medical report transcription.

HIM 3200. Health Information Services Management (3) S
An overview of information technology issues and management for healthcare managers. Healthcare computer applications, infrastructural planning, IS organizational structure, IT procurement, systems analysis, and evaluation are presented and discussed.

HIM 3300. Introduction to Quality Improvement in Health Care (3) F, S
Quality assessment, disease processes, risk management, and utilization review systems are presented to the student with an emphasis upon integration. TQM/CQI processes are examined and practiced.

HIM 3400. Health Care Networks and Databases (3)
A comprehensive introduction to health care application development, including local and wide area networks, the internet and intranets, database structure, database tools, data management, and information management. Prerequisite: IST 3110.

HIM 3450. Health Care Systems Analysis and Design (3)
A comprehensive introduction to the planning, design, and construction of health care information systems, using the systems development life cycle and other appropriate design tools. Prerequisite: HIM 3400.

HIM 3500. Biomedical Research Support (2) F
Design concepts and information systems used in biomedical research and investigation by drug companies, genetic engineering firms, academic institutions, and individual researchers and the support of same by health information professionals are discussed. The major national research policy-making bodies (NIH, NCHS, CDC) and their research protocols are reviewed. The student also learns what techniques and resources facilitate biomedical literature searches and how to assist a researcher in the pursuit of published information. An overview of the development, structure, and management of a health care institutional medical library is presented.

HIM 4100. Health Information Services Management (3) S
Management issues of health information services departments are discussed and worked through with reference to planning information services, organizing work force, procedures, and resources, staffing work units with qualified personnel, influencing information services teams performance, controlling/evaluating health information services performance and products, and resolving organizational conflict involving information issues. Background is developed to facilitate evaluation of a vended system's ability to meet health care information applications, objectives and procedural requirements. "Entrepreneurial" skill is
HIM 4990. Baccalaureate Thesis and Presentation (3) F

Senior health information management students complete a research project and thesis in partial fulfillment of program requirements. By the completion of the course, the senior student will be able to specify a thesis topic, specify individual thesis learning objectives, specify individual thesis learning activities, develop a thesis project time-line, implement the thesis project, write the thesis, and present it to the Health Information Management faculty and students. Topics are chosen by the student but require approval by the Program Coordinator.

Three entry options are available for students. Two of these lead to licensure by examination at the PN and AS/AAS levels. The third option leads to a baccalaureate degree in nursing.

**Entry Options**

**Practical Nursing:** The first year of the nursing program constitutes the practical nursing curriculum. Students selecting this option are awarded an Institutional Certificate by WSU following one year of study. For licensure as a practical nurse, graduates are required to successfully pass the National Council of Licensure Examination (NCLEX-PN).

**AS:** Two years are required for students entering this option.*

Students selecting this option must complete nursing major credits plus fulfill university general education credits required for graduation with an associate of science degree. Students selected for an associate of science degree in nursing may take the NCLEX-PN through the equivalency clause in the Utah Nurse Practice Act at completion of the first year. An additional year of course work entitles graduates to take the National Examination for licensure as a registered nurse (NCLEX-RN).

**AAS:** Two years are required for students entering this option.*

Students selected for an associate of applied science degree nursing may take the NCLEX-PN through equivalency clause in the Utah Nurse Practice Act at completion of the first year. An additional year of course work entitles graduates to take the National Examination for licensure as a registered nurse (NCLEX-RN).

**Practical Nurse (PN) to AS/AAS (PN to RN):** This entry option is open only to PNs.* Entering students enroll for the second year of the AA/AAS nursing program. Graduates take the NCLEX-RN at completion of this curriculum year.

*A 2 + 2 BSN Option is available to PN-to-RN and AS/AAS nursing students that desire uninterrupted progression through the AS/AAS Degree to the RN-to-BSN Program level. PN-to-RN and AS/AAS Nursing Program applicants must declare the 2+2 BSN program option at the time of application.

**RN-to-BSN:** Three entry options exist for achieving the baccalaureate degree in nursing. A four semester upper division curriculum rounds out the nursing program at this level. A three semester accelerated option is available for students able to take an increased credit load.

**First:** The 2+2 BSN Option is available to WSU nursing students admitted to either the PN-to-RN or the AS/AAS Nursing Programs. The 2+2 BSN option must be declared upon entry to these programs. 2+2 BSN students are guaranteed uninterrupted progression to the RN-to-BSN Program. However, uninterrupted program progression is contingent upon the student meeting RN-to-BSN admission criteria upon completion of the PN-to-RN or AS/AAS nursing programs & passing score on RN-NCLEX predictor exam. Additionally, in order to progress beyond the 1st semester of the RN-to-BSN curriculum, the 2+2 BSN student must successfully pass the RN-NCLEX exam. Failure to do so will result in an academic leave-of-absence until successful completion of the RN-NCLEX exam can be documented.

**Second:** This option to the RN-to-BSN Program provides access to WSU AS/AAS Nursing graduates who are not previously declared a 2+2 BSN student, but desire immediate progress to the RN-to-BSN Program level. These students may request uninterrupted progression during the final semester of their AS/AAS Program of study. However, uninterrupted program progression is contingent upon the student meeting RN-to-BSN admission criteria upon completion of the PN-to-RN or AS/AAS nursing programs & passing score on RN-NCLEX predictor exam. Additionally, in order to progress beyond the 1st semester of the RN-to-BSN curriculum, the 2+2 BSN student must successfully pass the RN-NCLEX exam. Failure to do so will result in an

* additional information on specific requirements and procedures.

**Funded in 1953, nursing at Weber State University offers students career progression from Practical Nursing (PN) to Associate of Science (AS) or Associate of Applied Science Degree Nursing (AAS) to Baccalaureate Nursing (BSN) via a ladder curriculum. The curriculum model enables student progression through various preparation levels in accordance with individual ability, aspirations, career goals and changing life circumstances. The program ensures entry level practitioners by providing a foundation from the physical, biological, behavioral and nursing sciences for application in caring for clients in a variety of nursing environments.

The nursing program embraces three levels of preparation for nursing practice: PN, Associate Degree Nursing (ADN) and BSN Educational offerings provide distinctive purposes and expectations for each level of nursing preparation while recognizing common areas of achievement within each level. Competency standards define graduate characteristics at each preparation level.
academic leave-of-absence until successful completion of the RN-NCLEX exam can be documented. Uninterrupted program progression cannot be guaranteed for non-2+2 BSN declared AS/AAS graduates. Program space availability may be limited.

Third: This option is licensed RN graduates from other AS/AAS or Diploma programs, or WSU AS/AAS nursing program graduates who have been out of school for an unspecified period of time.

Statewide Program
Cooperative, contractual, and outreach campuses bring the WSU nursing program to all sectors of the State.

Cooperative Campus: AS or AAS options are offered at Utah State University in Logan.

Contractual Campus: A PN to AS or AAS Program is offered in affiliation with the Davis Applied Technology College in Kaysville.

Outreach Campuses: Developed in response to rural needs, PN, PN to AS/AAS, AS/AAS, and RN to BSN options are offered through outreach education. Dependent upon local needs and available funding, outreach programs are offered at various campuses throughout the state for specified time periods. Campus locations and entry level offerings vary from year to year.

Licensure
Applicants who have been convicted of a felony, treated for serious mental illness or substance abuse should discuss their eligibility status with the Utah Board of Nursing. Acceptance to the nursing program does not assure eligibility for a PN or RN license. The Utah Board of Nursing makes final decisions on issuance of professional licensure.

Accreditation
The nursing program (PN, AA/AAS and BSN) is accredited by the National League for Nursing Accrediting Commission (NLNAC).

National League of Nursing Accrediting Commission
61 Broadway
New York, NY 10006
Phone: (212) 363-5555 extension 153, Fax: (212) 812-0309
www.nlnac.org

Admission Process For Entry Options

Practical Nursing

Telephone Contact: DCHP Admission Office (801) 626-6128

Applicants must first apply for admission to Weber State University. Applicants must also apply for admission to the Associate of Science/Associate of Applied Science Degree Nursing program. A 2 + 2 BSN Option is available to PN-to-RN and AS/AAS nursing students that desire uninterrupted progression through the AS/AAS Degree to the RN-to-BSN Program level. PN-to-RN and AS/AAS Nursing Program applicants must declare the 2+2 BSN program option at the time of application. Admission selections are made once per year. Applications may be obtained from the Nursing Admission Counselor, Room MH108B in the Dr. Ezekiel R. Dumke College of Health Professions. Applications must be completed and on file by 1 February of each year. A $20 application fee must be paid at the time the application is submitted. Admission applications are reviewed by the Nursing Program Admissions and Advancement Committee. Applicants are notified of committee decision by mail.

Program selectees begin prerequisites summer semester and are admitted autumn semester. All summer prerequisite courses must be successfully completed with a "C" grade or better in order to advance into fall semester. Admission requirements include the following:

• Completion of the following Math Requirements:
  ACT Math score of 23 or higher (within 24 months of applying).
  OR
  Math 1010 within 12 months of applying. If over 12 months, then applications must:
    Take math COMPASS test (no older than 1 year) and place into Math QL1030, QL1040, QL1050, QL1060 or QL1080
    OR
    Repeat Math 1010

• Complete the following requirements (within 24 months of applying): ACT Math score of 23 or higher (within 24 months of applying).
  OR
  Math 1010 within 12 months of applying. If over 12 months, then applications must:
    Take math COMPASS test (no older than 1 year) and place into Math QL1030, QL1040, QL1050, QL1060 or QL1080
    OR
    Repeat Math 1010

• Complete the following Math Requirements:
  ACT Math score of 23 or higher (within 24 months of applying).
  OR
  Math 1010 within 12 months of applying. If over 12 months, then applications must:
    Take math COMPASS test (no older than 1 year) and place into Math QL1030, QL1040, QL1050, QL1060 or QL1080;
    AP Calculus or AP Statistics with score of 3 or better; or math COMPASS with score of 65 or higher

Associate of Science/Associate of Applied Science Degree Nursing

Telephone Contact: DCHP Admission Office (801) 626-6128

Applicants for admission must first apply for admission to Weber State University. Applicants must also apply for admission to the Associate of Science/Associate of Applied Science Degree Nursing program. A 2 + 2 BSN Option is available to PN-to-RN and AS/AAS nursing students that desire uninterrupted progression through the AS/AAS Degree to the RN-to-BSN Program level. PN-to-RN and AS/AAS Nursing Program applicants must declare the 2+2 BSN program option at the time of application. Admission selections are made once per year. Applications may be obtained from the Nursing Admission Counselor, Room MH108B in the Dr. Ezekiel R. Dumke College of Health Professions. Applications must be completed and on file by 1 February of each year. A $20 application fee must be paid at the time the application is submitted. Admission applications are reviewed by the Nursing Program Admissions and Advancement Committee. Applicants are notified of committee decision by mail.

Program selectees begin prerequisites summer semester and are admitted autumn semester. All summer prerequisite courses must be successfully completed with a “C” grade or better in order to advance into fall semester. Admission requirements include the following:

• Completion of Certified Nursing Assistant Course Form, Certified Nursing Assistant Certificate or Certified Nursing Assistant Recertification Letter
• Graduation from high school or equivalent program
• Admission to Weber State University
• Completed application to Practical Nursing program and payment of the $20 application fee.
Baccalaureate Nursing for Registered Nurses - Ogden Campus

BACHELOR OF SCIENCE DEGREE (B.S.)

BSN Level Coordinator: Evelyn N. Draper, MA, RN
Telephone Contact: Ericka Turner (801) 626-6122

- Program Prerequisite: Completion of A.A.S. degree, A.S. degree, or Diploma nursing program certificate; current licensure as a registered nurse in the State of Utah or successful completion of required RN-Predictor Exam; and application to and acceptance into the BSN program (see the Admission Requirements above).
- Minor: Not required.
- Grade Requirements: A minimum grade of "B-" or better is required in all upper division nursing courses, and a grade of "C" or better is required for all support courses.
- Credit Hour Requirements: A total of 120 credit hours is required for a Bachelor of Science Degree. Of the 120 hours, 40 must be upper division level (UD) (courses numbered 3000 or higher). The nursing curriculum provides 37 UD hours leaving 3 credits open for an UD elective. Students entering the BSN program with an Associate's Degree usually have enough General Education credits to meet the 120 hour requirement, but AAS degree students will require more general education credits for graduation.

Advisement
Contact the DCHP Admissions Office (801-626-6128) for admission advisement.

Admission Requirements
See previous column.

General Education
Refer to pages 36-41 for Bachelor of Science requirements. However, the degree with which a student enters the BSN program, the institution at which the degree was obtained, and the year the student first attended Weber State all affect general education requirements. Each student must seek individual

WEBER STATE UNIVERSITY 2005 – 2006 CATALOG
advisement on needed requirements. The BS degree also requires fulfillment of University Scientific Inquiry and Diversity requirements.

**Course Requirements For B.S. Degree**

**Nursing Courses Required (37 credit hours)**

NRSG 3010 Nursing History & Theory (2)
NRSG 3030 Nursing Research (2)
NRSG 3030* Nursing Assessment Across the Lifespan (2)
NRSG 3031* Nursing Assessment Across the Lifespan Clinical (1)
NRSG 3035 Gerontological Nursing (2)
NRSG 3040* Nursing Concepts in Acute Illness (3)
NRSG 3050* Nursing: High Risk Family (3)
NRSG 3051* Nursing: High Risk Family Clinical (2)
NRSG 3060* Nursing: High Risk Adult (3)
NRSG 3061* Nursing: High Risk Adult Clinical (2)
NRSG 3080 Functional Operations in Nursing (2)
NRSG DV4020 Nursing: Community Health (3)
NRSG DV4021 Nursing: Community Health Clinical (2)
NRSG 4030 Power, Policy, & Politics in Nursing (2)
NRSG 4040 Nursing: Leadership & Management (3)
NRSG 4041 Nursing: Leadership & Management Clinical (2)
NRSG 4900 Senior Seminar: Integration of Professional Concepts (1)

*Credit for NRSG 3030, 3031, 3040, 3050, 3051, 3060, 3061, 4020, 4021, 4040, and 4041 may be earned through validation of prior learning. Written validation of experience is required.

**Upper Division Elective (3 credit hours)**

**Baccalaureate Nursing**

**HONORS OPTION**

- **Program Prerequisite:** Declare intent to obtain Departmental Honors in Nursing – both with the Honors office (see the Honors Program on page 43) and the BSN Honors advisor.

- **Grade Requirements:** Maintain an overall GPA of 3.3.

- **Credit Hour Requirements:** Upon entering the BSN program, determine an Honors project (with Honors Advisor or appropriate approval). This may be research related, a community project or a scholarly paper. Then, select courses within the BSN curriculum which relate to or enhance the Honors project. With instructor permission, take courses identified, but include an honors component with each course. During the final semester, complete the requirements of NRSG 4810 Departmental Honors which includes completion of an Honors project. At least 15 credit hours of upper division Nursing courses with the honors component must be completed to receive Nursing Honors credit. A written agreement should be reached with the appropriate professor regarding the work expected for Honors credit. (See the Honors Program on page 43.)

Permission from the professor teaching the course and the Nursing Honors Advisor must be sought before registering in a course for Nursing Honors credit. A written agreement should be reached with the appropriate professor regarding the work expected for Honors credit. (See the Honors Program on page 43.)

**Practical Nursing - Ogden Campus**

**INSTITUTIONAL CERTIFICATE**

**PN/ADN Level Coordinator:** Pam Rice, MSN, RN
**Telephone Contact:** Marguerite Simmons (801) 626-7416
- **Program Prerequisite:** Make application and be accepted to the program (see Admission Requirements on page 243).
- **Grade Requirements:** A minimum of 90 credit hours is required for the A.A.S. Twenty residency hours are also required.

**Credit Hour Requirements:** A minimum of 40 credit hours is required.

**Advisement**

Contact the DCHP Admissions Office (801-626-6128) for admission advisement.

**Admission Requirements**

See page 243.

**Course Requirements for Institutional Certificate**

**Nursing Courses Required (must be taken in sequence)**

**First Year Fall**

- NRSG 1030 Foundations of Nursing Practice (3)
- NRSG 1031 Foundations of Nursing Practice Clinical (3)
- NRSG 1050 Treatment Modalities I (3)

**First Year Spring**

- NRSG 1040 Women's Health & the Childbearing Family (2)
- NRSG 1041 Women's Health & the Childbearing Family Clinical (1)
- NRSG 1045 Nursing Care of Adults & Children I (3)
- NRSG 1046 Nursing Care of Adults & Children I Clinical (2)

**Support Courses Required (must be taken in sequence)**

Support courses must be completed and passed with a “C” or better for progression to the next semester.

**First Year Summer**

- OPTION I
  - FHHS LS1110 Health Sciences (Biomed) (4)
  - FHHS 1111 Health Sciences Lab (Biomed) (4)
  - CHEM PS/SI1050 Intro to General, Organic & Biochemistry (5)
  - or CHEM PS/SI1110 Elementary Chemistry (5)

- OPTION II
  - ZOOL 2100 Human Anatomy (4)
  - ZOOL 2200 Human Physiology (4)
  - CHEM PS/SI1050 Intro to General, Organic & Biochemistry (5)
  - or CHEM PS/SI1110 Elementary Chemistry (5)

**First Year Fall**

- MICR LS1113 Intro Microbiology (3)
- NUTR LS1020 Foundations in Nutrition (3)

**First Year Spring**

- ENGL EN1010 Intro to Writing (3)
- PSY SI1010 Intro to Psychology (3)

**Nursing - Ogden Campus**

**ASSOCIATE OF SCIENCE DEGREE (A.S.)**

**ASSOCIATE OF APPLIED SCIENCE DEGREE (A.A.S.)**

**PN/ADN Level Coordinator:** Pam Rice, MSN, RN
**Telephone Contact:** Marguerite Simmons (801) 626-7416

- **Program Prerequisite:** Make application and be accepted to the program. (Refer to the Admission Requirements on page 243.)
- **Grade Requirements:** A minimum grade of “B” in all Nursing courses in addition to a grade of “C” in each support course.
- **Credit Hour Requirement:** A minimum of 69 credit hours is required for the A.A.S. A minimum of 84 credit hours is required for the A.S. Twenty residency hours are also required.
Advisement
Contact the DCHP Admissions Office (801-626-6128) for admission advisement.

Admission Requirements
See page 243.

General Education
Required general education courses for the Associate of Applied Science are referenced in the course requirements following. Refer to pages 36-41 for Associate of Science additional general education requirements.

Course Requirements for A.S. Degree

Nursing Courses Required (must be taken in sequence)

<table>
<thead>
<tr>
<th>First Year Fall</th>
<th>First Year Spring</th>
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</thead>
<tbody>
<tr>
<td>NRSG 1030</td>
<td>Women's Health &amp; the Childbearing Family (2)</td>
</tr>
<tr>
<td>NRSG 1031</td>
<td>Nursing Care of Adults &amp; Children I (3)</td>
</tr>
<tr>
<td>NRSG 1050</td>
<td>Nursiing Care of Adults &amp; Children I Clinical (2)</td>
</tr>
</tbody>
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<table>
<thead>
<tr>
<th>Second Year Fall</th>
<th>Second Year Spring</th>
</tr>
</thead>
<tbody>
<tr>
<td>NRSG 2050</td>
<td>Treatment Modalities II (2)</td>
</tr>
<tr>
<td>NRSG 2060</td>
<td>Psychiatric/Mental Health Nursing Across the Lifespan (2)</td>
</tr>
<tr>
<td>NRSG 2061</td>
<td>Psychiatric/Mental Health Nursing Across the Lifespan Clinical (1)</td>
</tr>
<tr>
<td>NRSG 2070</td>
<td>Nursing Care of Adults &amp; Children II (3)</td>
</tr>
<tr>
<td>NRSG 2071</td>
<td>Nursing Care of Adults &amp; Children II Clinical (4)</td>
</tr>
</tbody>
</table>

Support courses required (must be taken in sequence)
Support courses must be completed and passed with a "C" or better for progression to the next semester.

<table>
<thead>
<tr>
<th>First Year Summer</th>
<th>First Year Fall</th>
</tr>
</thead>
<tbody>
<tr>
<td>OPTION I</td>
<td>OPTION II</td>
</tr>
<tr>
<td>HTHS LS1110</td>
<td>Zoology 2100</td>
</tr>
<tr>
<td>HTHS LS1111</td>
<td>Zoology 2200</td>
</tr>
<tr>
<td>CHEM PS/SI1050</td>
<td>CHEM PS/SI1050</td>
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<tr>
<td>or CHEM PS/SI1110</td>
<td>or CHEM PS/SI1110</td>
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<tr>
<td>Social Science Gen Ed Course (3)</td>
<td>Social Science Gen Ed Course (3)</td>
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<table>
<thead>
<tr>
<th>First Year Fall</th>
<th>First Year Spring</th>
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</thead>
<tbody>
<tr>
<td>MICR LS1113</td>
<td>Intro Microbiology (3)</td>
</tr>
<tr>
<td>NUTR LS1020</td>
<td>Foundations in Nutrition (3)</td>
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</table>

Course Requirements for A.A.S. Degree

Nursing Courses Required (must be taken in sequence)

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<thead>
<tr>
<th>First Year Fall</th>
<th>First Year Spring</th>
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</thead>
<tbody>
<tr>
<td>NRSG 1030</td>
<td>Women's Health &amp; the Childbearing Family (2)</td>
</tr>
<tr>
<td>NRSG 1031</td>
<td>Nursing Care of Adults &amp; Children I (3)</td>
</tr>
<tr>
<td>NRSG 1050</td>
<td>Nursiing Care of Adults &amp; Children I Clinical (2)</td>
</tr>
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</table>

<table>
<thead>
<tr>
<th>Second Year Fall</th>
<th>Second Year Spring</th>
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</thead>
<tbody>
<tr>
<td>NRSG 2050</td>
<td>Treatment Modalities II (2)</td>
</tr>
<tr>
<td>NRSG 2060</td>
<td>Psychiatric/Mental Health Nursing Across the Lifespan (2)</td>
</tr>
<tr>
<td>NRSG 2061</td>
<td>Psychiatric/Mental Health Nursing Across the Lifespan Clinical (1)</td>
</tr>
<tr>
<td>NRSG 2070</td>
<td>Nursing Care of Adults &amp; Children II (3)</td>
</tr>
<tr>
<td>NRSG 2071</td>
<td>Nursing Care of Adults &amp; Children II Clinical (4)</td>
</tr>
</tbody>
</table>

Support courses required (must be taken in sequence)
Support courses must be completed and passed with a "C" or better for progression to the next semester.

<table>
<thead>
<tr>
<th>First Year Summer</th>
<th>First Year Fall</th>
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<tbody>
<tr>
<td>OPTION I</td>
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<td>Zoology 2200</td>
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<tr>
<td>CHEM PS/SI1050</td>
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<tr>
<td>or CHEM PS/SI1110</td>
<td>or CHEM PS/SI1110</td>
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<tr>
<td>Social Science Gen Ed Course (3)</td>
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</tr>
</thead>
<tbody>
<tr>
<td>MICR LS1113</td>
<td>Intro Microbiology (3)</td>
</tr>
<tr>
<td>NUTR LS1020</td>
<td>Foundations in Nutrition (3)</td>
</tr>
</tbody>
</table>
First Year Spring
- ENGL EN1010 Intro to Writing (3)
- PSY SS1010 Intro to Psychology (3)

First Year Summer
- HTHS 2230 Pathobiology (3)

Second Year Fall
- ENGL EN2010 Intermediate Writing (3)

Second Year Spring
- HU or CA Humanities or Creative Arts (3)
- Gen Ed QL Math (3)

Weber State/Utah State University Cooperative Nursing - Logan Campus

ASSOCIATE OF SCIENCE DEGREE (A.S.)

ASSOCIATE OF APPLIED SCIENCE DEGREE (A.A.S.)
Campus Manager: Lori Hart, MSN, RN
Telephone Contact: Shirlene Hanchett (435) 797-1515

- Program Prerequisite: Make application and be accepted to the program (see Admission Requirements below).
- Grade Requirements: A grade of "B-" in all Nursing courses in addition to a grade of "C" in each support course.
- Credit Hour Requirements: A minimum of 69 credit hours is required for the A.A.S. A minimum of 84 credit hours is required for the A.S. Twenty residency hours are also required.

Advisement
Contact the DCHP Admissions Office (801-626-6128) for admission advisement.

Admission Requirements
Students apply for admission by contacting the Nursing Admission Counselor, Room MH108B, Dr. Ezekiel R. Dumke College of Health Professions, Weber State University, Ogden, Utah, 84408-3907 (801-626-6128). Deadline for applying is 1 February. A $20 application fee must be paid at the time the application is submitted. Applications are reviewed by the Nursing Admissions and Advancement Committee. Applicants are notified of committee decision by mail.

General Education
General education courses required are referenced in the course requirements that follow. Please also refer to the university general education requirements and check with the campus manager.

Course Requirements for A.S. Degree

Nursing Courses Required (must be taken in sequence)

First Year Fall
- NRSG 1030 Foundations of Nursing Practice (3)
- NRSG 1031 Foundations of Nursing Practice Clinical (3)
- NRSG 1050 Treatment Modalities I (3)

First Year Spring
- NRSG 1040 Women's Health and the Childbearing Family (1)
- NRSG 1041 Women's Health and the Childbearing Family Clinical (1)
- NRSG 1045 Nursing Care of Adults & Children I (3)
- NRSG 1046 Nursing Care of Adults & Children I Clinical (2)

Second Year Fall
- NRSG 2050 Treatment Modalities II (2)
- NRSG 2070 Nursing Care of Adults & Children II (3)
- NRSG 2071 Nursing Care of Adults & Children II Clinical (4)

Second Year Spring
- NRSG 2060 Psychiatric/Mental Health Nursing Across the Lifespan (2)
- NRSG 2061 Psychiatric/Mental Health Nursing Across the Lifespan (1)
- NRSG 2080 Patient Care Management (1)
- NRSG 2081 Patient Care Management Clinical (3)

Support Courses Required (must be taken in sequence)
Support courses must be completed and passed with a "C" or better for progression to the next semester.

First Year Summer
- BIOL 2000 Human Physiology (4)
- BIOL 2010 Anatomy (4)
- CHEM 1110 or 1050 (4)
- Humanities elective (3)

First Year Fall
- BIOL 1110 Microbiology (4)
- or MICR 1100 (3)
- NFS 1020 Nutrition (3)

First Year Spring
- PSY 1010 General Psychology (3)
- HS 2230 Intro to Pathobiology (3)

Second Year Summer
- ENG EN1010 English (3)
- Quantitative Literacy (4)
- Creative Arts elective (3)
- Social Science elective (3)

Second Year Fall
- ENG EN2010 English (3)
- American Institutions (3)
- Second Year Spring
- Humanities elective (3)
- QL (4)

Course Requirements for A.A.S Degree

Nursing Courses Required (must be taken in sequence)

First Year Fall
- NRSG 1030 Foundations of Nursing Practice (3)
- NRSG 1031 Foundations of Nursing Practice Clinical (3)
- NRSG 1050 Treatment Modalities I (3)

First Year Spring
- NRSG 1040 Women's Health & the Childbearing Family (1)
- NRSG 1041 Women's Health & the Childbearing Family Clinical (1)
- NRSG 1045 Nursing Care of Adults & Children I (3)
- NRSG 1046 Nursing Care of Adults & Children I Clinical (2)

Second Year Fall
- NRSG 2050 Treatment Modalities II (2)
- NRSG 2070 Nursing Care of Adults & Children II (3)
- NRSG 2071 Nursing Care of Adults & Children II Clinical (4)
Second Year Spring
- NRSG 2060: Psychiatric/Mental Health Nursing Across the Lifespan (2)
- NRSG 2061: Psychiatric/Mental Health Nursing Across the Lifespan Clinical (1)
- NRSG 2080: Patient Care Management (2)
- NRSG 2081: Patient Care Management Clinical (3)

**Support Courses Required (must be taken in sequence)**
Support courses must be completed and passed with a “C” or better for progression to the next semester.

First Year Summer
- BIOL 2000: Human Physiology (4)
- BIOL 2010: Anatomy (4)
- CHEM 1110 or 1050 (4)

First Year Fall
- BIOL 1110: Microbiology (4)
- or MICR 1100 (3)
- NFS 1020: Nutrition (3)

First Year Spring
- PSY 1010: General Psychology (3)
- HS 2230: Intro to Pathophysiology (3)

Second Year Summer
- ENG EN1010: English (3)
- Quantitative Literacy (4)
- Humanities elective (3)

Second Year Fall
- ENG EN2010: English (3)

**NURSING OUTREACH CAMPUSES**

**BACHELOR OF SCIENCE DEGREE (B.S.) - NURSING FOR REGISTERED NURSES (RN TO BSN)**

**INSTITUTIONAL CERTIFICATE - PRACTICAL NURSING**

Outreach Coordinator: Pam Hugie, MSN, RN
Telephone Contact: Aiko Flowers (801) 626-6134
Assistant Professors: Laura Mahler, LuAnn Jacobs-Peterson

All nursing options are offered to campuses located throughout rural areas. Entry options and campus locations are publicized each year as rural needs are analyzed and funding received. Interested applicants should contact the Nursing Admission Counselor for application materials and posting dates for selected entry option:
- Robert Holt
  Manager, Nursing Student Affairs
  Weber State University
  Ogden, UT 84408-3903
  (801) 626-7774

Applicants must meet all admission requirements for selected entry option as previously outlined. Applications are reviewed and evaluated by the Nursing Program Admissions and Advancement Committee. Applicants are notified of committee decision by mail.

**NURSING COURSES - NRSG**

NRSG 1030. Foundations of Nursing Practice (3) F
Nursing concepts are introduced which will be built upon throughout the nursing curriculum as students care for clients throughout the lifespan. The development of safe and effective basic nursing skills is emphasized as the students utilize the nursing process to meet the physiological, psychosocial, health promotional

...and maintenance needs of clients. Therapeutic communication techniques are presented as a means of promoting a caring approach to client interactions. Students are also socialized into the professional role of nursing and understand how to interact as part of a health care team. Credit hours (3): 3 lecture hours per week. Co-requisites: NRSG 1031, 1050. Must be taken concurrently with NRSG 1031.

NRSG 1031. Foundations of Nursing Clinical (3) F
A companion course taught in concert with NRSG 1030. Clinical experience running concurrently with NRSG 1030. Experience will be gained in long term care, lab, acute care, and home care. Clinical hours will be arranged and supervised by instructor. Credit hours (3): 9 clinical hours, 135 hours per semester. Co-requisites: NRSG 1030, 1050. Must be taken concurrently with NRSG 1030.

NRSG 1040. Women’s Health and the Childbearing Family (2) S
Theory focuses on meeting basic human needs of the family and newborn throughout the childbearing cycle. Skills focus on the normal pregnancy/labor/delivery/newborn/postpartum client. Credit hours (2): 2 lecture hours per week. Prerequisites: Nursing 1030, 1031, 1050. Co-requisites: Nursing 1041, 1043, 1046. Must be taken concurrently with NRSG 1041.

NRSG 1041. Women’s Health and the Childbearing Family Clinical (1) S
A companion course taught in concert with NRSG 1040. Clinical experience running concurrently with Nursing 1040. Application of theoretical knowledge to the acute care situation. Increased development of nursing skills during and immediately after childbirth. Some prenatal observational experiences may be provided. Credit hours (1): 3 clinical hours per week, 45 hours per semester. Prerequisites: NRSG 1030, 1031, 1050. Co-requisites: NRSG 1040, 1043, 1046. Must be taken concurrently with NRSG 1040.

NRSG 1045. Nursing Care of Adults and Children I (3) S
Focused theory with emphasis on the physiological and psychosocial needs of clients across the lifespan. Credit hours (3): 3 lecture hours per week. Prerequisites: NRSG 1030, 1031, 1050. Co-requisites: NRSG 1040, 1041, 1046. Must be taken concurrently with NRSG 1046.

NRSG 1046. Nursing Care of Adults and Children I Clinical (2) S
A companion course taught in concert with NRSG 1045. Guided clinical experiences with emphasis on the physiological and psychosocial needs of clients across the lifespan in a variety of health care settings. Credit hours (2): 6 clinical hours per week, 90 hours per semester. Prerequisites: NRSG 1030, 1031, 1050. Co-requisites: NRSG 1040, 1041, 1046. Must be taken concurrently with NRSG 1045.

NRSG 1050. Treatment Modalities (3) F
Basic treatments and pharmacological agents used by the nurse to promote health across the lifespan. Included in the course will be drugs affecting the respiratory system, parasympathetic and sympathetic system, cardiovascular system, central nervous system, and gastrointestinal system. Other drugs addressed include antidiabetic agents, muscle relaxants, and antibiotics. Non-pharmacological treatment modalities addressed include comfort measures and play therapy. Credit hours (3): 3 lecture hours per week. Co-requisites: NRSG 1030, 1031.
NRSG 1124. Transition into Associate Degree Nursing (2) Su, F
Socialization from practical nursing to the associate degree, registered nurse level.

NRSG 2050. Treatment Modalities (2) F, S
Advanced treatments and pharmaceutical agents used by the nurse to promote health across the lifespan. Included in the course will be drugs affecting the endocrine system and cardiovascular system. Other drugs addressed include IV therapy, blood products, antibiotics, calcium replacement agents, anti-Parkinson drugs, prostate drugs, chemotherapy drugs and biological response modifiers. Non-pharmaceutical treatment modalities addressed include art, music therapy, therapeutic touch, humor, pet therapy, reminiscence therapy, meditation, visualization, imaging and validation therapy. Credit hours (2): 2 lecture hours per week. Prerequisites: NRSG 1030, 1031, 1040, 1041, 1045, 1046, 1050. Co-requisites: NRSG 2060, 2061, 2070, 2071.

NRSG 2060. Psychiatric/Mental Health Nursing Across the Lifespan (2) F, S
Students explore caring strategies for promoting mental health and preventing illness across the lifespan. The various roles and functions of the psychiatric nurse are introduced. Emphasis on the dynamics and theories behind basic psychopathological conditions. Students apply the nursing process for the restoration and rehabilitation of patients with psychiatric disorders. Enhancing communication skills in an interdisciplinary environment is a primary goal of this course. Credit hours (2): 2 lecture hours per week. Prerequisites: NRSG 1030, 1031, 1040, 1041, 1045, 1046, 1050. Co-requisites: NRSG 2050, 2070, 2071. Must be taken concurrently with NRSG 2061.

NRSG 2061. Psychiatric/Mental Health Nursing Across the Lifespan Clinical (1) F, S
A companion course taught in concert with NRSG 2060. Clinical application of psychiatric/mental health nursing taught in NRSG 2060. Students will be exposed to patients in a variety of health care settings with mental health needs. Credit hours (1): 3 clinical hours per week, 45 hours per semester. Prerequisites: NRSG 1030, 1031, 1040, 1041, 1045, 1046, 1050. Co-requisites: NRSG 2050, 2070, 2071. Must be taken concurrently with NRSG 2060.

NRSG 2070. Nursing Care of Adults and Children II (3) F, S
Theory with emphasis on more complex physiologic and psychosocial needs of clients across the lifespan. Credit hours (3): 3 lecture hours per week. Prerequisites: Nursing 1030, 1031, 1040, 1041, 1045, 1046, 1050. Co-requisites: NRSG 2050, 2060, 2061. Must be taken concurrently with NRSG 2070.

NRSG 2071. Nursing Care of Adults and Children II (4) F, S
A companion course taught in concert with NRSG 2070. Clinical application of medical-surgical concepts learned in NRSG 2070. Students will provide care in a variety of health care settings. Credit hours (4): 12 clinical hours per week, 180 hours per semester. Prerequisites: NRSG 1030, 1031, 1040, 1041, 1045, 1046, 1050. Co-requisites: NRSG 2050, 2060, 2061. Must be taken concurrently with NRSG 2070.

NRSG 2080. Patient Care Management (2) F, S
Theory focuses on the synthesis of nursing knowledge and skills necessary for entrance into registered nursing practice. Preparation for NCLEX exams continues. Licensing, professionalism and management are addressed. Credit hours (2): 2 lecture hours per week. Prerequisites: 1030, 1031, 1040, 1041, 1045, 1046, 1050, 2050, 2060, 2061, 2070, 2071. Must be taken concurrently with NRSG 2081.

NRSG 2081. Patient Care Management Clinical (3) F, S
A companion course taught in concert with NRSG 2080. Clinical synthesis of nursing knowledge and skills necessary for entrance into registered Nursing Practice. Hours are concentrated into a 4 week block and completed as if student was a full time employee. Credit hours (3): 135 hours per semester. Prerequisites: NRSG 1030, 1031, 1040, 1041, 1045, 1046, 1050, 2050, 2060, 2061, 2070, 2071. Must be taken concurrently with NRSG 2080.

NRSG 2283. Directed Readings and Projects (1-3) F, S
(Maximum of 3 semester hours per year).
Prerequisite: Instructor approval.

NRSG 2289. Cooperative Education (1-3)
Note This course is not currently active
Open to all students in nursing who meet the minimum coop requirements of this department. Involves planning and implementation of an approved project which promotes PN and/or ADN concepts and meets specific work place needs. Nursing department to determine credit to be awarded for approved project and appropriate grading criteria. Prerequisite: Instructor approval. Maximum 6 semester hours/year, maximum 3 semester hours/semester.

NRSG 3000. Basic Trauma Nursing (4)
This course will introduce the student to the skills basic to the care of the multiple trauma patient. It will include trauma incidence and statistics, triage, equipment and training. Approaches to trauma systems and centers will be addressed. This course will also introduce the student to the basic care of multiple systems injuries and will briefly cover pediatric trauma. This course will also introduce the student to drugs and equipment used with the multiple trauma patient. Credit hours: (4): 4 lecture hours per week. (Elective)

NRSG 3010. Nursing History and Theory (2) F
A writing intensive course that examines nursing historical and theoretical foundations for professional nursing practice. This course will provide a forum for students to scrutinize the historical evolution of professional nursing and the theoretical foundations which have emerged. Credit hours (2): 2 lecture hours per week.

NRSG SI3020. Nursing Research (2)
An introduction to the research process in the clinical setting. This course will introduce students to research and will briefly cover pediatric trauma. This course will also introduce the student to drugs and equipment used with the multiple trauma patient. Credit hours: (4): 4 lecture hours per week. (Elective)

NRSG SI3030. Nursing Assessment Across the Life Span (2) F
Companion course to NRSG SI3031. Provides the theory requisite for the systematic examination and analysis of subjective and objective health assessment data obtained during the health assessment process. The health status of a client will be determined through the process of differential analysis of both the anecdotal evidence provided by the client and empirical evidence gathered during the physical examination. With this evidence, students will learn to apply the scientific process of formulating and testing hypothetical diagnoses. The overall purpose will be focused upon developing strategies and skills to assess the health care needs of people across the life span. Students are challenged to identify

NRSG 2283. Directed Readings and Projects (1-3) F, S
(Maximum of 3 semester hours per year).
Prerequisite: Instructor approval.

NRSG 2289. Cooperative Education (1-3)
Note This course is not currently active
Open to all students in nursing who meet the minimum coop requirements of this department. Involves planning and implementation of an approved project which promotes PN and/or ADN concepts and meets specific work place needs. Nursing department to determine credit to be awarded for approved project and appropriate grading criteria. Prerequisite: Instructor approval. Maximum 6 semester hours/year, maximum 3 semester hours/semester.

NRSG 3000. Basic Trauma Nursing (4)
This course will introduce the student to the skills basic to the care of the multiple trauma patient. It will include trauma incidence and statistics, triage, equipment and training. Approaches to trauma systems and centers will be addressed. This course will also introduce the student to the basic care of multiple systems injuries and will briefly cover pediatric trauma. This course will also introduce the student to drugs and equipment used with the multiple trauma patient. Credit hours: (4): 4 lecture hours per week. (Elective)

NRSG 3010. Nursing History and Theory (2) F
A writing intensive course that examines nursing historical and theoretical foundations for professional nursing practice. This course will provide a forum for students to scrutinize the historical evolution of professional nursing and the theoretical foundations which have emerged. Credit hours (2): 2 lecture hours per week.

NRSG SI3020. Nursing Research (2)
An introduction to the research process in the clinical setting. This course will introduce students to research and will briefly cover pediatric trauma. This course will also introduce the student to drugs and equipment used with the multiple trauma patient. Credit hours: (4): 4 lecture hours per week. (Elective)

NRSG SI3030. Nursing Assessment Across the Life Span (2) F
Companion course to NRSG SI3031. Provides the theory requisite for the systematic examination and analysis of subjective and objective health assessment data obtained during the health assessment process. The health status of a client will be determined through the process of differential analysis of both the anecdotal evidence provided by the client and empirical evidence gathered during the physical examination. With this evidence, students will learn to apply the scientific process of formulating and testing hypothetical diagnoses. The overall purpose will be focused upon developing strategies and skills to assess the health care needs of people across the life span. Students are challenged to identify
normal assessment findings and critically analyze variations from normal. Two (2) credit hours, two (2) lecture hours. Co-requisite NRSG SI3031 must be taken concurrently with NRSG SI3031.

NRSG SI3031. Nursing Assessment Across the Life Span Clinical (1) F, S

Companion course to NRSG SI3030. Provides hands on clinical practice experience that will provide students experience with the equipment and requisite psychomotor skills employed in the systematic examination and analysis of subjective and objective health assessment data obtained during the health assessment process. Using these skills, the health status of a client will be determined through the process of differential analysis of both the anecdotal evidence provided by the client history and empirical evidence gathered during the physical examination. With this evidence, students will learn to apply the scientific process of formulation and testing hypothetical diagnoses. The overall purpose will be focused upon developing strategies and skills to assess the health care needs of people across the life span. Students are challenged to identify normal assessment findings and critically analyze variations from normal. One (1) credit hour, three (3) clinical lab hours. Co-requisite NRSG SI3030 (must be taken concurrently with NRSG SI3030).

NRSG 3035. Gerontological Nursing (2) F, S

With the aging of America and the ever-growing population of elderly persons in this society, it is essential that nursing profession- als have both knowledge and understanding in the care of gerontological clients. This course addresses the emotional, social, physiological and behavioral changes that occur throughout the aging process. It models the highest standards of gerontological nursing practice in acute, long-term and community settings. Credit hours (2): 2 lecture hours per week. Co-requisites: NRSG 3080 or HAS 3260 and NRSG 3010, 3020, 3030, 3031.

NRSG 3040. Nursing Concepts in Acute Illness (3) F, S

Explores advanced nursing concepts relevant to physiologic changes related to life threatening illness and injury. Age specific alterations in physiology will be identified and analyzed. Credit hours (3): 3 lecture hours per week. Prerequisites: NRSG 3080 or HAS 3260 and NRSG 3010, 3020, 3030, 3031, 3035.

NRSG 3050. Nursing: High Risk Family (3) F, S

At-risk families need multiple interventions from knowledgeable care givers to assist them through the intricacies of obtaining quality health care. Students identify, then integrate, complex nursing strategies in situations involving parents, infants, and children in high risk childbearing populations. Credit hours (3): 3 lecture hours per week. Prerequisites: NRSG 3080 or HAS 3260 and NRSG 3010, 3020, 3030, 3031, 3035. Co-requisites: NRSG 3040, 3051. (NRSG 3050 and 3051 must be taken concurrently.)

NRSG 3051. Nursing: High Risk Family Clinical (2) F, S

A companion course taught in concert with NRSG 3050. Students develop cognitive and psychomotor skill in the assessment and management of complex problems of newborn and children in a laboratory setting and then experience patient interactions in a variety of clinical settings including home, community and acute care. Credit hours (2): 4 clinical hours per week, 60 hours per semester. Prerequisites: NRSG 3080 or HAS 3260 and NRSG 3010, 3020, 3030, 3031, 3035. Co-requisites: NRSG 3040, 3050. (NRSG 3050 and 3051 must be taken concurrently.)

NRSG 3060. Nursing: High Risk Adult (3) F, S

Advanced theories and concepts of nursing practice are explored in relation to adults experiencing life threatening alterations in health. Credit hours (3), 3 lecture hours per week. Prerequisites: NRSG 3080 or HAS 3260 and NRSG 3010, 3020, 3030, 3031, 3035. Co-requisites: NRSG 3040, 3061. (NRSG 3060 and 3061 must be taken concurrently.)

NRSG 3061. Nursing: High Risk Adult Clinical (2) F, S

A companion course taught in concert with NRSG 3060. Students provide care for adults with life threatening alterations in health and are able to apply and evaluate advanced therapeutic nursing interventions. Credit hours (2): 4 clinical hours per week, 60 hours per semester. Prerequisites: NRSG 3080 or HAS 3260 and NRSG 3010, 3020, 3030, 3031, 3035. Co-requisites: NRSG 3040, 3060. (NRSG 3060 and 3061 must be taken concurrently.)

NRSG 3080. Functional Operations in Nursing (2) Su, F, S

This course is designed to provide the learner with front line skills and knowledge in nursing management. A foundation for the application of the nursing management process as it relates to operations of health care delivery is provided. This course integrates clinical examples for acquisition of the skills of delegation for quality patient care; care delivery models and structure; critical decision making; team empowerment; conflict resolution; coaching and mentoring in the clinical setting; staff education and clinical competence assessment; resource control and allocation; and productivity and efficiency in health care.

NRSG 3890. Cooperative Education (1-3) F, S

Note: This course is not currently active

Open to all students in nursing who meet the minimum coop requirements of this department. Involves planning and implementation of a project that promotes safe concept and meets specific work place needs. Prerequisite: Requires Baccalaureate Coordinator approval. Involves in-depth project which promotes baccalaureate concepts and promotes workplace needs. Maximum three credit hours TOTAL. (Elective)

NRSG DV4000. Culture and Health Care (2)

This course is an exploration of culture, health care issues and experiences at the local, regional, national, or international levels. The learner will study and compare the health care of a selected country/community from the cultural, political and educational perspective. Credit hours (2), 2 lecture hours per week. Prerequisite: Admission to Weber State University – Recommended for nursing students, Licensed Nurses, and other healthcare providers.

NRSG DV4001. Clinical Experience Related to Culture and Health Care of Nurses (1-3)

This course is a Study Abroad Experience for Health Care Workers to explore the relationship between culture, health care and nursing issues at local, regional, national, and/or international levels. Information gained during Nursing 4000 will assist the student to put into practice the concepts learned Credit hours (1-3). Lab hours depend on the country visited. Co-requisite or prerequisite: NRSG 4000 related to area being visited.

NRSG 4010. Interdisciplinary Health Care Teams (3)

This course provides an interdisciplinary experience with the team concept as a priority. The students learn the role of the health care team members, each with their different skills and objectives. The course teaches students to practice an interdisciplinary approach as they research, interact and learn in the interdisciplinary environment of a health care setting. Cross-listed with DENT & HTHS.

NRSG 4012. Issues in Nursing (2) F, S

Examines current issues in baccalaureate nursing practice with emphasis on advanced skills in client teaching/learning, application of computers for patient care, and practice issues applicable in the
present health care environment. Students encouraged to identify issues relevant to their areas of practice. Credit hours: (2): 2 lecture hours per week.

NRSG DV4020. Nursing: Community Health (3) F, S
With the varied roles of the community nurse identified and the health of the community as the focus, techniques in assessment are emphasized. Community populations at risk are identified and strategies to promote health and prevent disease are identified and evaluated. Credit hours: (3): 3 lecture hours per week. Prerequisites: NRSG 3080 or HAS 3260 and NRSG 3010, 3020, 3030, 3031, 3035. Co-requisite: NRSG 3040, DV4021. (NRSG DV4020 and DV4021 must be taken concurrently.)

NRSG DV4021. Nursing: Community Health Clinical (2) F, S
A companion course taught in concert with NRSG 4020. Clinical experience offers an opportunity for students to assess a selected community and learn how health issues are addressed in the community setting. The role of the nurse is emphasized as it pertains to enhancing the health status of individuals, groups and communities. Credit hours: (2): 4 clinical hours per week, 60 hours per semester. Prerequisites: NRSG 3080 or HAS 3260 and NRSG 3010, 3020, 3030, 3031, 3035. Co-requisites: NRSG 3040, DV4020. (NRSG DV4020 and DV4021 must be taken concurrently.)

NRSG 4030. Power, Policy, and Politics in Nursing (2) F, S
Types of power, political influences, and social forces which impact nurses and nursing are explored. Policy development, utilization of power, and politics are analyzed as methods to further the discipline of nursing. Credit hours: (2): 2 lecture hours per week. Prerequisites: NRSG 3080 or HAS 3260 and NRSG 3010, 3020, 3030, 3031, 3035. Co-requisite: NRSG 3040.

NRSG 4040. Nursing: Leadership and Management Clinical (2) F, S
A writing intensive course with synthesis of classical theories and principles of leadership and management and their application to the nursing profession. Students then apply strategies, processes and techniques of nurse/leader manager functions to simulated classroom situations. Credit hours: (3): 3 lecture hours per week. Prerequisites: NRSG 3080 or HAS 3260 and NRSG 3010, 3020, 3030, 3031, 3035. Co-requisites: NRSG 3040, 4041. (NRSG 4040 and 4041 must be taken concurrently.)

NRSG 4041. Nursing: Leadership and Management Clinical (2) F, S
A companion course taught in concert with NRSG 4040 whose focus is on a variety of leader/manager roles in multiple settings. Based on the application of critical thinking processes, students apply nursing theoretical and practice principles. Credit hours: (2): 4 clinical hours per week, 60 hours per semester. Prerequisites: NRSG 3080 or HAS 3260 and NRSG 3010, 3020, 3030, 3031, 3035. Co-requisites: NRSG 3040, 4040. (NRSG 4040 and 4041 must be taken concurrently.)

NRSG SH4800. Guided Research (1-3 credits - Variable hours) F, S
Scientific inquiry, research methodology, and writing for qualified students with instructor consent. There will be some emphasis on the critical appraisal of scientific publications and professional literature. Students will be guided in the development and/or critique of clinical problem statements; hypotheses; theoretical foundations and research methodology; presentation of research findings. Ethical canons related to clinical research will be discussed. (Elective) Prerequisites: NRSG 3010, NRSG 3020 and instructor consent.

NRSG 4830. Directed Theoretical Readings (Variable hours) F, S
Involves a contract with a faculty to include reading and writing of materials relevant to baccalaureate level nursing. Subject emphasis arranged with faculty. Three credits must include application of research articles to baccalaureate nursing functions. (Elective)

NRSG 4840. Departmental Honors in Nursing Seminar (3) F, S
Completion of this course is required for students participating in the honors program in nursing. Students explore scholarly activity in nursing through the guided completion of one of three different learning options: creating a research proposal, writing a scholarly paper, or performing a service project. Learning through active and individualized scholarly inquiry is the focus of this class. Prerequisite: NRSG 3020.

NRSG 4900. Senior Seminar: Integration of Professional Concepts (1) F, S
Provides a forum for the integration of key baccalaureate nursing concepts and issues. Content analyzes these concepts and issues, assists students in using critical thinking to synthesize and debate various aspects of the issues and then evaluate outcomes. This course may only be taken the final semester of the BSN nursing program. Credit hours (1), 2 seminar hours per week. Prerequisites: NRSG 3080 or HAS 3260 and NRSG 3010, 3020, 3030, 3031, 3035. Co-requisites: NRSG 3040, 3050, 3051, 3060, 3061, 4020, 4021, 4030, 4040, 4041.

DEPARTMENT
RADIOLOGIC SCIENCES

Department Chair: Robert J. Walker, Ph.D., R.T.(R)(MR)(CT)(QM), FASRT
Location: Marriott Health Building, Room 363
Telephone Contact: Jerri L. Byers 801-626-6057
Toll Free Telephone: 1-800-848-7770, Option 1
Off-Campus Programs Contact: Aleta Wood, 801-626-6619
Admissions/Counseling: Judith Joy 801-626-7136
Clinical/Laboratory Manager: Nancy Palmer
Instructor: Kathryn Frye, Diane Newham, Nanci L. Saurdiff; Michael Devenport, Terri Jurkiewicz, Matthew Tobler, Dottie Winterton (Provo Radiography)

Radiologic Sciences is a medical field that uses ionizing radiation, sound waves and magnetic fields to produce medical images for diagnostic purposes or to treat diseases by combining medical procedures with technology.

RADIOGRAPHY

The Radiography program is provided in an integrated manner of didactic instruction and the utilization of on-campus x-ray rooms, darkrooms and clinical experience in Radiology departments of affiliated health facilities.

During the course of the program, radiologic physics, anatomy, radiographic procedures, positioning and patient assessment are taught. The student participates in clinical education within the affiliate healthcare facilities throughout the program.
The program begins fall semester of the first year and continues through the summer of the second year. The student qualifies for an Associate of Applied Science degree upon completion of the general education requirements and the professional course work. Upper division elective courses completed during the program may be applied toward a baccalaureate degree.

BACHELOR DEGREE (B.S.)

To obtain a baccalaureate degree, the student must complete the WSU General Education requirements (see pages 36-41); a major and a minor emphasis; a quality assurance course; and RADT SI4943, Baccalaureate Thesis (3), or equivalent.

RADIODRAPHY

ASSOCIATE OF APPLIED SCIENCE DEGREE (A.A.S.)

Program Prerequisite: Complete the prerequisite courses; make application and be accepted to the program (refer to the Admission Requirements below).

Grade Requirements: Demonstrate ability to achieve scholastically.

Credit Hour Requirements: The credit hours required for graduation with an A.A.S. degree are 23-26 credit hours of prerequisite courses and 60 credit hours of didactic and clinical education courses.

Advisement

Students should meet with the admissions counselor at least annually for course and program review. Call 801-626-7136 for more information or to schedule an appointment.

Admission Requirements

1. Apply for admission to Weber State University;
2. Pay the $20 program application fee.
3. Present a satisfactory high school and/or college(s) transcript(s).
4. Apply to the Radiography Program for acceptance and follow the procedures as outlined on the program application, which is in addition to the Weber State Admissions Application. The deadline date for applications to be received is January 10 of each year. Student selection is made during Spring semester and those accepted into the program begin their professional phase of the curriculum the following fall semester.
5. Pay the $20 program application fee.
6. Present a satisfactory high school and/or college(s) transcript(s).
7. Complete the general education courses listed below.

General Education

Refer to pages 36-41 for A.A.S. degree requirements. The following are required:

- English EN1010 (3)
- English EN2020 (3)
- Quantitative Literacy - MATH QL1040 (3) or MATH QL1050 (4)
- Computer Literacy (demonstrate literacy) no credit
- Life Science (3)
- Social Sciences (Introductory Psychology) Course (3)
- Humanities (Communication) Course (3)
- Computer Literacy - MATH QL1040 (3) or MATH QL1050 (4)

Elective Courses (6-13 credit hours)

- RADT 1022 Intro to Rad Tech (2)
- RADT 1303 Principles of Radiographic Exposure I (3)
- RADT 1502 Radiographic Anatomy & Positioning I (2)
- RADT 1522 Radiographic Anatomy & Positioning II (2)
- RADT 1532 Radiographic Anatomy & Positioning III (2)
- RADT 1542 Radiographic Anatomy & Positioning IV (2)
- RADT 1601 Laboratory Experience (2)
- RADT 1621 Laboratory Experience (1)
- RADT 1641 Laboratory Experience (1)
- RADT 1661 Laboratory Experience (1)
- RADT 1681 Laboratory Experience (1)
- RADT 2043 Patient Care & Assessment I (2)
- RADT 2272 Basic Sectional Anatomy (2)
- RADT 2403 Principles of Radiographic Exposure II (2)
- RADT 2861-2865 Clinical Education (14)
- RADT 2866 Final Competency Evaluation (2)
- RADT 2913 Comprehensive Review (2)
- RADT DV3003 Psycho-Social Medicine (3)
- RADT 3043 Medical Ethics & Law (3)
- RADT 3403 Radiobiology & Health Physics (3)
- RADT SI3443 Quality Assurance (3)
- RADT 3463 Computerized Imaging (3)

Advance Radiologic Sciences

BACHELOR DEGREE (B.S.)

The Advanced Radiologic Sciences program is designed to fill the continuing education needs of registered technologists, to provide a career ladder for those who wish to obtain additional skills in a specialized area, and to provide an opportunity to earn a Bachelor of Science (B.S.) degree. Programs of study are designed to meet the career goals of students in medical imaging modalities and for technical, management and educational positions. The following emphases or programs are available:

- Advanced Radiography
- Magnetic Resonance Imaging and/or Computed Tomography (MRI and CT)
- Cardiovascular-Interventional Technology (CIT)
- Mammography (M)
- Radiology Practitioner Assistant

The Radiologic Practitioner Assistant program requires the consent of a supervising physician and 5 years experience as an ARRT registered technologist (R.T.).

Program Prerequisite: Must be an ARRT registered technologist or acceptable equivalent as determined by the Department of Radiologic Sciences, make application and be accepted to the program of choice (refer to the Admission Requirements below).

Minor: Students may select any approved minor in consultation with a faculty advisor and the completion of an academic contract. A minor is not required for the Radiology Practitioner Assistant (RPA) program.

Grade Requirements: After admittance into the program of choice, a GPA of 2.0 is required in all professional courses.

Credit Hours: A total of 120 credit hours is required for graduation – 30-48 of these must be within the major emphasis.

Advisement

Students must meet with a faculty advisor and complete an academic contract for the program of study selected and should meet with a faculty advisor at least annually for course and program review. Call 801-626-6057 for more information or to schedule an appointment.

Admission Requirements

1. Apply for admission to Weber State University;
2. Apply to the program of choice and submit a $20.00 application fee;
3. Submit copy of active ARRT certification card or acceptable equivalent;
4. Submit transcripts from all colleges and universities attended (no college experience, submit a high school transcript and R.T. program transcript);
5. Declare the program of study within the Advanced Radiologic Sciences major;
6. Complete an academic contract in consultation with a faculty advisor.

General Education
Refer to pages 36-41 for Bachelor of Science requirements.

Specific Requirement: Students must complete an upper division research course in either the major area of emphasis or in the minor emphasis. The course must be equivalent to RADT 4943, Baccalaureate Thesis (3) and approved by a faculty advisor.

Course Requirements for B.S. Degree

Radiography Courses Required (5 credit hours)
RADT 4933 Research Methods (2)
RADT S4943 Baccalaureate Thesis (3)

Complete one of the following emphases:

• Advanced Radiologic Sciences Emphasis

Required Courses (12 credit hours)
RADT DV3003 Psycho-Social Medicine (3)
RADT 3043 Medical Ethics & Law (3)
RADT 3423 Federal Regulations (3)
RADT 4203 Patient Education in Radiology (3)

Electives (select 25-33 credit hours)
Elective courses must have approval of a faculty advisor.
RADT 3123 Sectional Anatomy (3)
RADT 3143 Imaging Pathophysiology (3)
RADT 3243 Patient Care & Assessment II (3)
RADT 3253 Patient Care & Assessment III (3)
RADT 3263 Diagnostic Services Pharmacology II (3)
RADT 3403 Radiobiology & Health Physics (3)
RADT S3443 Quality Assurance in Radiology (3)
RADT 3463 Computerized Imaging (3)
RADT 3863 Clinical Internship (2-6)
RADT 4213 Supervision & Staff Development (3)
RADT 4223 Promotional Strategies (3)
RADT 4233 Fiscal Analysis in Radiology (3)
RADT 4243 Quality Management (3)
RADT 4253 Risk Management (3)
RADT 4303 Cardiology (3)
RADT 4403 Imaging Pathology (3)
RADT 4413 Forensic Radiology (3)
RADT 4543 Bone Densitometry (3)
RADT 4573 The Female Patient and Medical Imaging (3)
RADT 4803 Individual Research (1-3)
RADT 4833 Directed Readings & Research (3)
RADT 4863 Clinical Internship (2-4)
RADT 4922 Workshops, Conferences and Telecourses (2)
RADT 4942 Current Trends & Issues (2)
RADT 4992 Seminar (1-2)

• Magnetic Resonance Imaging (MRI) and/or Computed Tomography (CT) Emphasis

Prerequisite Courses (6 credit hours)
RADT 3243 Patient Care & Assessment II (3)
RADT 3403 Radiobiology and Health Physics (3)

Support Courses for CT and MRI (29-33 credit hours)
RADT 3043 Medical Ethics and Law (3)
RADT 3123 Sectional Anatomy (3)
RADT 3143 Imaging Pathophysiology (3)
RADT 3403 Radiobiology & Health Physics (3)
RADT 3253 Patient Care & Assessment III (3)
RADT 3463 Computerized Imaging (3)
RADT 3863 Clinical Internship (3)
RADT 4203 Patient Education in Radiology (3)
RADT 4303 Cardiology (3)
RADT 4863 Clinical Internship (2-6)

Magnetic Resonance Imaging (MRI)

Required Courses (14 credit hours)
RADT 4603 MRI Physics and Instrumentation (3)
RADT 4623 Advanced MRI Procedures and Safety (3)
RADT 4633 MRI Imaging of the CNS (3)
RADT 4643 MRI Imaging of the Torso and Limbs (3)
RADT 4912 Comprehensive Review/MRI (2)

Computed Tomography (CT)

Required Courses (11 credit hours)
RADT 4613 CT Imaging of the Torso and Limbs (3)
RADT 4653 CT Imaging of the CNS (3)
RADT 4663 CT Physics and Instrumentation (3)
RADT 4911 Comprehensive Review/CT (2)

• Cardiovascular-Interventional Technology (CIT) Emphasis

Prerequisite Courses (6 credit hours)
RADT 3243 Patient Care & Assessment II (3)
RADT 3403 Radiobiology & Health Physics (3)

Required Courses (9 credit hours)
RADT 4313 Visceral, Pelvic and Extremity Angiography (3)
RADT 4333 Head and Neck Angiography (3)
RADT 4343 Thoracic and Venous Procedures (3)

Support Courses for CIT (32 credit hours)
RADT 3043 Medical Ethics and Law (3)
RADT 3123 Sectional Anatomy (3)
RADT 3143 Imaging Pathophysiology (3)
RADT 3253 Patient Care & Assessment III (3)
RADT 3263 Diagnostic Services Pharmacology II (3)
RADT 3463 Computerized Imaging (3)
RADT 3863 Clinical Internship (3)
RADT 4203 Patient Education in Radiology (3)
RADT 4303 Cardiology (3)
RADT 4863 Clinical Internship (3)
RADT 4913 Comprehensive Review/CIT (2)

• Mammography Emphasis

Required Courses (15 credit hours)
RADT 4553 Breast Anatomy, Pathology and Physiology (3)
RADT 4563 Mammographic Positioning
RADT 4572 Patient Education and Clinical Examination (2)
RADT 4583 Mammographic Equipment and Quality Assurance (3)
RADT 4861 Clinical Internship (2)
RADT 4862 Clinical Internship (2)

Support Courses (12 credit hours)
RADT DV3003 Psycho-Social Medicine (3)
RADT 3043 Medical Ethics and Law (3)
RADT 3423 Federal Regulations (3)
RADT 4203 Patient Education in Radiology (3)

Electives (7 credit hours)
RADT 4833 Directed Readings and Research (3)
RADT 4914 Comprehensive Review/M (2)
RADT 4992 Seminar (2)
Radiology Practitioner Assistant Emphasis

Please Note: The RPA Program is in the process of being revised. If you are interested in this program, please contact the Radiologic Sciences Department.

A minor emphasis is not required.

Prerequisites: Applicants must be an ARRT registered technologist, have a minimum of five years experience as a registered technologist in radiography and the consent of a radiologist.

Required Courses (45 credit hours)

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<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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<tr>
<td>RADT 5403</td>
<td>Evaluation/Osseous System</td>
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<tr>
<td>RADT 5413</td>
<td>Evaluation/Chest</td>
<td>3</td>
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<tr>
<td>RADT 5423</td>
<td>Evaluation/Abdomen &amp; GI System</td>
<td>3</td>
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<tr>
<td>RADT 5433</td>
<td>Evaluation/Genitourinary Systems</td>
<td>3</td>
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<tr>
<td>RADT 5443</td>
<td>Clinical Pathways</td>
<td>3</td>
</tr>
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<td>RADT 5453</td>
<td>Evaluation/CNS System &amp; Facial Structures</td>
<td>3</td>
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<tr>
<td>RADT 5463</td>
<td>Problem Patient Management</td>
<td>3</td>
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<td>RADT 5473</td>
<td>Invasive Imaging Procedures</td>
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<td>RADT 5861</td>
<td>Clinical Preceptorship</td>
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<td>RADT 5867</td>
<td>Competency Assessment/Residency</td>
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<td>RADT 5868</td>
<td>Final Competency Assessment</td>
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Support Courses (33 credit hours)

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<td>Psycho-Social Medicine</td>
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<td>RADT 3043</td>
<td>Medical Ethics and Law</td>
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<td>Imaging Pathophysiology</td>
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<td>Patient Care &amp; Assessment III</td>
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<td>Diagnostic Services Pharmacology II</td>
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<td>Radiobiology &amp; Health Physics</td>
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<td>RADT 3423</td>
<td>Federal Regulations</td>
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<td>RADT 4203</td>
<td>Patient Education in Radiology</td>
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<td>RADT 4303</td>
<td>Cardiology</td>
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<tr>
<td>RADT 4833</td>
<td>Directed Readings &amp; Research</td>
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Advanced Radiologic Sciences

**MINOR EMPHASIS**

- **Grade Requirements:** A GPA of 2.0 in all courses used toward the minor.
- **Credit Hour Requirements:** 18-24 credit hours in Advanced Radiologic Sciences. An academic contract must be generated with a faculty advisor for a minimum of 18 credit hours from the RADT upper division courses. Courses required for certification cannot be used to fulfill minor requirements.

Students may select any approved minor in consultation with a faculty advisor and the completion of an academic contract. A minor is not required for the Radiology Practitioner Assistant (RPA) program.

Radiography Courses - RADT

**RADT 1022. Introduction to Radiologic Technology (2)**
Program orientation, elementary radiation protection and basic darkroom procedures.

**RADT 1303. Principles of Radiographic Exposure I (3)**
Theory of x-ray production; image production and radiographic equipment.

**RADT 1502. Radiographic Anatomy and Positioning I (2)**
Terminology, pathology and radiographic positioning.

**RADT 1512. Radiographic Anatomy and Positioning II (2)**
Continuation of RADT 1502.

**RADT 1522. Radiographic Anatomy and Positioning III (2)**
Continuation of RADT 1512.

**RADT 1532. Radiographic Anatomy and Positioning IV (2)**
Continuation of RADT 1522.

**RADT 1542. Radiographic Anatomy and Positioning V (2)**
Continuation of RADT 1532.

**RADT 1601. Laboratory Experience (2)**
Patient positioning, darkroom experience and review of radiographic quality.

**RADT 1621. Laboratory Experience (1)**
Continuation of RADT 1601.

**RADT 1641. Laboratory Experience (1)**
Continuation of RADT 1621.

**RADT 1661. Laboratory Experience (1)**
Continuation of RADT 1641.

**RADT 1681. Laboratory Experience (1)**
Continuation of RADT 1661.

**RADT 2043. Patient Care and Assessment I (2)**
Patient care and management in radiology.

**RADT 2272. Basic Sectional Anatomy (2)**
The anatomical appearance of each organ system and common pathology on sectional medical images.

**RADT 2403. Principles of Radiographic Exposure II (2)**
Radiographic imaging, instrumentation, image production and factors affecting radiologic quality.

**RADT 2803. Independent Research (1-3)**
Individualized projects.

**RADT 2833. Directed Readings and Research (1-3)**
Selected readings and/or a research project on medical imaging procedures.

**RADT 2861. Clinical Education (2)**
Experience gained in a health care facility.

**RADT 2862. Clinical Education (3)**
Continuation of RADT 2861.

**RADT 2863. Clinical Education (3)**
Continuation of RADT 2862.

**RADT 2864. Clinical Education (3)**
Continuation of RADT 2863.

**RADT 2865. Clinical Education (3)**
Continuation of RADT 2864.

**RADT 2866. Final Competency Evaluation (2)**
Demonstration of competency performing the procedures required by the certification agency.

**RADT 2913. Comprehensive Review (2)**
Review of didactic and clinical applications.
RADT 2921. Workshop, Conferences and Telecourses (1-3)

RADT 2942. Career Planning and New Technology (2)
Assistance with career planning and an introduction to specialized imaging procedures and new and future imaging procedures.

RADT 2992. Seminar (1-2)
Patient case studies and critical care situations.

RADT DV3003. Psycho-Social Medicine (3)
Designed to prepare students to better understand their patient and the patient's family through comparison of diverse populations based on their value systems, cultural and ethnic influences, communication styles, socio-economic influences, health risks and life stages. Study of factors that influence the interrelationships with patients and professional peers. Understanding multicultural diversity assists the student in providing better patient care.

RADT 3043. Medical Ethics and Law (3)
Medical ethics and law and case studies in medical imaging and radiation therapy.

RADT 3123. Sectional Anatomy (3)
Anatomical study of the body in the sagittal, transverse and coronal imaging planes.

RADT 3143. Imaging Pathophysiology (3)
Imaging adaptations and alterations in anatomy and physiology with variation outside of the normal range.

RADT 3243. Patient Care and Assessment II (3)
System analysis and advanced level of patient care, assessment and management in radiology.

RADT 3253. Patient Care and Assessment III (3)
Intravenous therapy, patient care procedures and monitoring during imaging studies.

RADT 3263. Diagnostic Services Pharmacology II (3)
Concepts of pharmacology including modes of action, uses, modes of excretion effects, side effects and patient care required for specific pharmacologic agents.

RADT 3403. Radiobiology & Health Physics (3)
Effects of ionizing radiation on the human body, patient and personnel protection, exposure monitoring health physics and oncology.

RADT 3423. Federal Regulations (3)
Regulations governing health care, equipment and application of ionizing radiation.

RADT SI3443. Quality Assurance in Radiology (3)
Development of a quality assurance program and manual to meet accreditation requirements.

RADT 3463. Computerized Imaging (3)
Processing of digital images in specialized radiographic procedures, three dimensional imaging and computerized management practice.

RADT 3863. Clinical Internship (2-6)
Experience in a radiology specialty area. Consent of instructor is required.

RADT 4203. Patient Education in Radiology (3)
Skills necessary to assess, plan and evaluate a variety of educational programs specific to radiology patients.

RADT 4213. Supervision and Staff Development (3)
Federal regulations, developing department protocol, designing departments personnel supervision and quality of care assessment.

RADT 4223. Promotional Strategies (3)
Assessment of needs, development and implementation of promotional strategies for Radiology Departments.

RADT 4233. Fiscal Analysis in Radiology (3)
Justification, acquisition and leasing of imaging equipment and accessories, staffing formulas and review of maintenance contracts.

RADT 4243. Quality Management in Radiology (3)
Concepts and principles of quality management, collection and analysis of data.

RADT 4253. Risk Management (3)
Study of management of risk associated with the delivery of health care in clinical and non-clinical settings.

RADT 4303. Cardiology (3)
Detailed study of the heart; anatomy, physiology, pathophysiology, pharmacology, EKGs and imaging modalities.

RADT 4313. Visceral, Pelvic and Extremity Angiography (3)
Anatomy, pathology, protocols and interventional procedures of abdominal viscera, extremities and pelvis.

RADT 4333. Head and Neck Angiography (3)
Anatomy, pathology, protocols and interventional procedures of the aortic arch, brachiocephalic, thyroid and other facial and neck arteries.

RADT 4343. Thoracic and Venous Procedures (3)
Anatomy, pathology, protocols and interventional procedures of the venous and cardiac systems.

RADT 4403. Imaging Pathology (3)
Radiographic presentation of pathological conditions, abnormalities and anomalies.

RADT 4413. Forensic Radiology (3)
This course provides a comprehensive study of medical imaging’s role in forensic medicine. Forensic Radiology is used to determine identity of remains, evaluate injury or cause of death and assist in the detection of abuse. Junior or Senior standing required.

RADT 4543. Bone Densitometry (3)
This course comprehensively covers the methods of bone density measurement (bone densitometry, DEXA), the pathogenesis of osteoporosis, quality management issues, therapies for osteoporosis and a review of additional analysis methods.

RADT 4553. Breast Anatomy, Physiology and Pathology (3)
Normal breast anatomy and physiology compared to pathological conditions.

RADT 4563. Mammographic Positioning/Imaging Techniques (3)
Routine positions, risk versus benefit; tissue variations, specialized procedures and imaging modalities.

RADT 4572. Patient Education and Clinical Examination (2)
Breast disease and reconstruction methods, breast examination, rehabilitation, medical-legal considerations.
RADT 4573. The Female Patient and Medical Imaging (3)
This course will familiarize the student to disease processes specific to the female patient and the imaging methods that may be used in diagnosis and treatment. The clinical pathways that are commonly used, involving all radiologic imaging modalities, will be explored. Students who enroll in this course must be certified by the American Registry of Radiologic Technologists.

RADT 4583. Mammographic Equipment and Quality Assurance (3)
Equipment operation, technical factors and quality assurance procedures in mammography.

RADT 4603. Magnetic Resonance Imaging Physics and Instrumentation (3)
Physical principles and theories of magnetic resonance, instrumentation, imaging sequences and methods in normal and abnormal tissue, and computer parameters of magnetic resonance.

RADT 4613. Computed Tomography of the Torso and Limbs (3)
Sectional anatomy, pathology and imaging protocols of the abdominal viscera, pelvis, thorax and extremities.

RADT 4623. Advanced MRI Procedures and Safety (3)
Evaluation of organ function and diagnosis of disease process using advanced MRI procedures with emphasis on spectroscopy and functional MR. Includes an in-depth study of MRI safety.

RADT 4633. Magnetic Resonance Imaging of the Central Nervous System (3)
Sectional anatomy, pathology and imaging protocol of the head, spine and central nervous system.

RADT 4643. Magnetic Resonance of the Torso and Limbs (3)
Sectional anatomy, pathology and imaging protocols of the abdominal viscera, pelvis, thorax and extremities.

RADT 4653. Computed Tomography of the Central Nervous System (3)
Sectional anatomy, pathology and imaging protocols of the head, spine and central nervous system.

RADT 4663. Computed Tomography Physics and Instrumentations (3)
Interactions of electromagnetic waves, instrumentation, imaging sequences and computer parameters of computerized tomography imaging.

RADT 4803. Individual Research (1-3)
Research projects developed for district, state, regional or national presentation.

RADT 4833. Directed Readings and Research (3)
Synthesis and analysis of journal articles resulting in a research paper for the purpose of publication.

RADT 4861. Clinical Internship (2)
Experience in a radiology specialty area. Consent of instructor is needed.

RADT 4862. Clinical Internship (2)
Experience in a radiology specialty area. Consent of instructor is needed.

RADT 4863. Clinical Internship (2-4)
Experience in a radiology specialty area. Consent of instructor is needed.

RADT 4911. Comprehensive Review/CT (2)
Preparation for advanced certification examination.

RADT 4912. Comprehensive Review/MRI (2)
Preparation for advanced certification examination.

RADT 4913. Comprehensive Review/CIT (2)
Preparation for advanced certification examination.

RADT 4914. Comprehensive Review/M (2)
Preparation for advanced certification examination.

RADT 4915. Comprehensive Review/QM (2)
Preparation for advanced certification examination.

RADT 4922. Workshop, Conferences and Telecourses (2)

RADT 4933. Research Methods (2)
The formulation of a hypothesis, study of quantitative research methods, the testing of theories through analytical or statistical inquiry and the preparation of a manuscript.

RADT 4942. Current Issues and Trends (2)
Current issues and trends in the health care industry and environment affecting radiology.

RADT SI4943. Baccalaureate Thesis (3)
Research in the health professions utilizing the scientific inquiry method.

RADT 4992. Seminar (2)
New developments and procedures in imaging and therapy and preparing for the future.

RADT 5403. Evaluation of the Osseous System (3)
Imaging evaluation of pathological conditions, abnormalities and anomalies of the osseous system.

RADT 5413. Evaluation of the Chest (3)
Imaging evaluation of pathological conditions, abnormalities and anomalies of the chest.

RADT 5423. Evaluation of the Abdomen and G I System (3)
Imaging evaluation of pathological conditions, abnormalities and anomalies of the abdomen and gastrointestinal system.

RADT 5433. Evaluation of the Genitourinary System (3)
Imaging evaluation of pathological conditions, abnormalities and anomalies of the genitourinary system.

RADT 5443. Clinical Pathways (3)
Studying clinical pathways for patients based on disease processes and trauma. Prerequisites: RADT 5403 and RADT 5413.

RADT 5453. Evaluation/CNS and Facial Structures (3)
Imaging evaluation of pathological conditions, abnormalities and anomalies of the central nervous system and facial structures.

RADT 5463. Problem Patient Management (3)
Determination of pathological conditions utilizing problem-solving case studies.

RADT 5473. Invasive Imaging Procedures (3)
Patient preparation and performance of medical imaging invasive procedures are presented.

RADT 5861. Clinical Preceptorship (3)
Experience in a radiology department. Consent of instructor needed.

RADT 5862. Clinical Preceptorship (3)
Continuation of RADT 5861.
RADT 5863. Clinical Preceptorship (3)
Continuation of RADT 5862.

RADT 5864. Clinical Preceptorship (3)
Continuation of RADT 5863.

RADT 5865. Clinical Preceptorship (3)
Continuation of RADT 5864.

RADT 5867. Competency Assessment/Residency (3)
Assessment of competency knowledge and skills in the clinical setting.

RADT 5868. Final Competency Assessment (3)
Review and evaluation of student competencies.

**Diagnostic Medical Sonography**

The Diagnostic Medical Sonography program is designed as an advanced discipline of study for two-year graduates of radiography programs or equivalent as determined by the Department of Radiologic Sciences. A student can complete the required courses and be eligible to sit for the national certification examination. The courses offered in Diagnostic Medical Sonography are upper-division and will be accepted as satisfying the requirements for a primary area emphasis for those students who have been accepted into the Bachelor of Science program.

The program and support courses are four (4) semesters in length. A competency-based evaluation system is utilized throughout the program. A student must achieve a predetermined level of competency in the academic and clinical courses in order to receive grades for the course. The clinical education courses require a minimum of 24 clock hours per calendar week in an affiliated health care facility.

**Bachelor Degree (B.S.)**

To obtain a baccalaureate degree, the student must complete the WSU General Education requirements (see pages 36-41); a major and a minor emphasis; a quality assurance course; and RADT SI4943, Baccalaureate Thesis (3), or equivalent.

**Diagnostic Medical Sonography Certification**

- **Program Prerequisite:** Must be an ARRT registered technologist or acceptable equivalent as determined by the Department of Radiologic Sciences, make application and be accepted to the program of choice (refer to the Admission Requirements below).
- **Grade Requirements:** After admittance to the program, a GPA of 2.0 or a grade of "C" is required in all professional courses.
- **Credit Hour Requirements:** Credit hours required will vary according to the chosen emphasis. Consult with a faculty member to complete an academic contract.

**Advisement**

Students should meet with the admissions counselor at least annually for course and program review. Call 801-626-6057 for more information or to schedule an appointment.

**Admission Requirements**

To be eligible for admission to the Diagnostic Medical Sonography program, the following criteria must be met:

1. Application must be made to Weber State.
2. Demonstrate ability to achieve scholastically.

3. Complete an application to the desired program and pay the $20 application fee.
4. Provide the following with the application:
   a. transcripts from hospital certificate program or colleges and universities;
   b. high school transcripts if no previous college experience; and
c. copy of ARRT certification or equivalent.
5. Have all pertinent material on file January 10.
6. Have major specified as Diagnostic Medical Sonography.

**Course Requirements for Certification**

**Biomedical Core Courses Required**

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<td>HTHS 1111</td>
<td>Health Sciences (4)</td>
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or the following acceptable equivalent

| Life Science (3) |

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<th>Prerequisite Requirements</th>
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<td>RADT 3243</td>
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**DMS Courses Required**

A Diagnostic Medical Sonography elective must be selected by the student from one of the following:

| DMS 4103 | Physics & Instrumentation (3) |
| DMS SI4143 | Quality Assurance (3) |

**Emphasis Requirements**

Complete the courses for one of the following two emphasis areas: Medical Emphasis (22 credit hours) or Cardiac Emphasis (18 credit hours).

- **Medical Emphasis**

| DMS 4303 | Abdominal Sonography (3) |
| DMS 4323 | Superficial Structure & Special Studies (1) |
| DMS 4343 | Obstetric & Gynecologic Sonography (3) |
| DMS 4403 | Vascular Sonography (2) |
| DMS 4641 | Laboratory Scanning Experience I (1) |
| DMS 4642 | Laboratory Scanning Experience II (1) |
| DMS 4643 | Laboratory Scanning Experience III (1) |
| DMS 4861 | Clinical Education I (3) |
| DMS 4862 | Clinical Education II (3) |
| DMS 4863 | Clinical Education III (3) |
| DMS 4911 | Comprehensive Review I (2) |

- **Cardiac Emphasis**

| DMS 4503 | Cardiac Sonography I (3) |
| DMS 4523 | Cardiac Sonography II (3) |
| DMS 4644 | Laboratory Scanning Experience IV (1) |
| DMS 4645 | Laboratory Scanning Experience V (1) |
| DMS 4865 | Laboratory Education V (3) |
| DMS 4866 | Clinical Education VI (3) |
| DMS 4867 | Clinical Education VII (3) |
| DMS 4912 | Comprehensive Review II (1) |

**Support Courses Required for Medical or Cardiac Emphasis (12 credit hours)**

| RADT 3043 | Medical Ethics & Law (3) |
| RADT 3123 | Sectional Anatomy (3) |
| RADT 3143 | Imaging Pathophysiology (3) |
| RADT 3253 | Patient Care & Assessment III (3) |

**Support Course Required for Cardiac Emphasis**

| RADT 4303 | Cardiology (3) |

**Electives**

| DMS 4864 | Clinical Education IV/Vascular (3) |
| DMS 4801 | Individualized Research (1-3) |
| DMS 4921 | Workshops, Conferences & Telecourses (1-3) |
 DIANOSTIC MEDICAL SONOGRAPHY COURSES - DMS

DMS 4103. Physics & Instrumentation (3)
Elementary principles, propagation through tissues, transducers, pulse echo principles and instruments, images, storage and display, Doppler, image features and artifacts, bioeffects and safety.

DMS 4143. Quality Assurance (3)
Developing, analyzing and evaluating a quality assurance program.

DMS 4303. Abdominal Sonography (3)
Concepts in abdominal intraperitoneal and retroperitoneal sonographic scanning technique and protocol to produce and evaluate diagnostic images in the clinical setting.

DMS 4323. Superficial Structure & Special Studies (1)
Concepts in superficial structure sonographic scanning technique and protocol to produce and evaluate diagnostic images in the clinical setting.

DMS 4343. Obstetric & Gynecologic Sonography (3)
Concepts in superficial structures, neonatal brain and spine obstetric and gynecologic sonographic scanning technique and protocol to produce and evaluate diagnostic images, and to assist in biopsy and aspiration procedures.

DMS 4403. Vascular Sonography (2)
Concepts in vascular sonographic scanning technique and protocol to produce and evaluate diagnostic images.

DMS 4503. Cardiac Sonography I (3)
Concepts in cardiac sonographic scanning technique and protocol to produce and evaluate diagnostic images.

DMS 4523. Cardiac Sonography II (3)
Continuation of DMS 4503.

DMS 4611. Laboratory Scanning Experience I (1)
Patient position and instruction, transducer selection and anatomic placement, scanning protocol, and image quality are practiced and reviewed for medical and vascular sonographic examinations.

DMS 4641. Laboratory Scanning Experience II (1)
Continuation of DMS 4611.

DMS 4643. Laboratory Scanning Experience III (1)
Continuation of DMS 4642.

DMS 4644. Laboratory Scanning Experience IV (1)
Patient position and instruction, transducer selection and anatomic placement, scanning protocol, and image quality are practiced and reviewed for cardiac sonographic examinations.

DMS 4645. Laboratory Scanning Experience V (1)
Continuation of DMS 4644.

DMS 4801. Individualized Research (1-3)
Contract with faculty advisor required.

DMS 4861. Clinical Education I (3)
A minimum of 24 hours per week in an active diagnostic medical/vascular sonography department.

DMS 4862. Clinical Education II (3)
Continuation of DMS 4861.

DMS 4863. Clinical Education III (3)
Continuation of DMS 4862.

DMS 4864. Clinical Education IV/Vascular (3)
Contract required to gain additional vascular clinical competencies.

DMS 4865. Clinical Education V (3)
A minimum of 24 hours per week in an active diagnostic cardiac sonography department.

DMS 4866. Clinical Education VI (3)
Continuation of DMS 4865.

DMS 4867. Clinical Education VII (3)
Continuation of DMS 4866.

DMS 4911. Comprehensive Review I (1-2)
Review and requirements for advanced responsibilities of the medical sonographer (1 cr. hr.) and vascular sonographer (1 cr. hr.)

DMS 4912. Comprehensive Review II (1)
Review and requirements for advanced responsibilities of the cardiac sonographer.

DMS 4921. Workshops, Conferences and Telecourses (1-3)

NUCLEAR MEDICINE

The Nuclear Medicine program is designed as an advanced discipline of study for ARRT registered technologists or the acceptable equivalent. A student can complete the required courses, obtain a certificate of completion, and be eligible to sit for the national certification examination. The courses offered in the Nuclear Medicine program are upper-division and will be accepted as satisfying the requirements for a primary area emphasis for those students who have been accepted into the Bachelor of Science program.

The program is three (3) full semesters in length, which requires the student to attend in the summer. A competency-based clinical evaluation system is utilized throughout the program. A student must achieve a predetermined level of competency in the academic and clinical courses in order to receive grades for the course. A minimum of 24 clock hours per week of clinical education must be completed in an affiliated health care facility.

BACHELOR DEGREE (B.S.)

To obtain a baccalaureate degree, the student must complete the WSU General Education requirements (see pages 36-41); a major and a minor emphasis; a quality assurance course; and RADT 4943, Baccalaureate Thesis (3), or equivalent.

NUCLEAR MEDICINE CERTIFICATION

- Program Prerequisite: Must be an ARRT registered technologist or acceptable equivalent as determined by the Department of Radiologic Sciences, make application and be accepted to the program of choice (refer to the Admission Requirements below).
- Grade Requirements: After admittance to the program, a GPA of 2.0 is required in all professional courses.
- Credit Hour Requirements: A total of 29 credit hours in didactic courses and clinical education are required. The support courses or the equivalent must be completed to obtain the degree.

Advisement

Students should meet with a faculty advisor at least annually for course and program review. Call 801-626-6057 for more information or to schedule an appointment.

Admission Process

To be eligible for admission to the Nuclear Medicine program, the following criteria must be met:
1. Application and admission to Weber State University.
2. Demonstrate ability to achieve scholastically.
3. Complete an application to the desired program and pay the $20 application fee.
4. Provide the following with the application:
   a. transcripts from hospital certificate programs or colleges and universities;
   b. a copy of ARRT certification or equivalent.
5. Have all pertinent material on file by January 10.
6. Have major specified as Nuclear Medicine.

Course Requirements for Certification

Prerequisite Courses
- RADT 3043 Medical Ethics and Law (3)
- RADT 3243 Patient Care & Assessment II (3)
- RADT 3263 Diagnostic Services Pharmacology II (3)
- RADT 3403 Radiobiology & Health Physics (3)
- RADT 3463 Computerized Imaging (3)

Nuclear Medicine Courses Required (29 credit hours)
- NUCM 4103 Radiopharmaceuticals & Dosages (3)
- NUCM 4203 Scanning & Imaging Procedures I (3)
- NUCM 4213 Scanning & Imaging Procedures II (3)
- NUCM 4223 Nuclear Cardiology (3)
- NUCM 4303 Radionuclide Physics & Instrumentation (3)
- NUCM SI4333 Quality Assurance (3)
- NUCM 4861 Clinical Education (3)
- NUCM 4863 Clinical Education (3)
- NUCM 4912 Comprehensive Review (2)

Support Courses (12 credit hours)
- RADT 3123 Sectional Anatomy (3)
- RADT 3143 Imaging Pathophysiology (3)
- RADT 3403 Cardiology (3)
- RADT 4303 Medical Ethics and Law (3)

Elective
- NUCM 4991 Seminar (1)

NUCLEAR MEDICINE COURSES - NUCM

NUCM 4103. Radiopharmaceuticals and Dosages (3)
Radiopharmacology, characterization of radiopharmaceuticals used in performing examinations and calculation of dosages.

NUCM 4203. Scanning and Imaging Procedures I (3)
Organ concentration, excretion and absorption, measurements and imaging.

NUCM 4213. Scanning and Imaging Procedures II (3)
Organ concentration, excretion and absorption, measurements and imaging.

NUCM 4223. Nuclear Cardiology (3)
Pathology, indications for examination and procedures in nuclear cardiology.

NUCM 4303. Radionuclide Physics & Instrumentation (3)
Production and properties of radionuclides, decay schemes, radiation measurements and special characteristics of radiopharmaceuticals.

NUCM SI4333. Quality Assurance (3)
Nuclear Medicine departmental policies and procedures.

NUCM 4861. Clinical Education (3)
A minimum of 24 hours per week in an active Nuclear Medicine department.

NUCM 4862. Clinical Education (3)
A minimum of 24 hours per week in an active Nuclear Medicine department.

NUCM 4863. Clinical Education (3)
A minimum of 24 hours per week in an active Nuclear Medicine department.

NUCM 4912. Comprehensive Review (2)
Review of learned material.

NUCM 4991. Seminar (1)
New technology, procedures and equipment.

RADATION THERAPY

The Radiation Therapy program is designed as an advanced discipline of study for graduates of accredited programs. A student can complete the required courses, obtain a certificate of completion, and be eligible to sit for the national certification examination. The courses offered in the Radiation Therapy program are upper-division and will be accepted as satisfying the requirements for a primary area emphasis for those students who have been accepted into the Bachelor of Science program.

The program is three (3) full semesters in length, which requires the student to attend in the summer. A competency-based clinical evaluation system is utilized throughout the program. A student must achieve a predetermined level of competency in the academic and clinical courses in order to receive grades for the course. A minimum of 24 clock hours per week of clinical education must be completed in an affiliated health care facility.

BACHELOR DEGREE (B.S.)
To obtain a baccalaureate degree, the student must complete the WSU General Education requirements (see pages 36-41); a major and a minor emphasis; a quality assurance course; and RADT SI4943, Baccalaureate Thesis (3), or equivalent.

RADATION THERAPY CERTIFICATION

Program Prerequisite: Must be an ARRT registered technologist or acceptable equivalent as determined by the Department of Radiologic Sciences, make application and be accepted to the program of choice (refer to the Admission Requirements below).

Grade Requirements: After admission to the program, a GPA of 2.0 or a "C" is required in the professional courses.

Credit Hour Requirements: A total of 27 credit hours in didactic courses and 9 credit hours in clinical education are required. The support courses or the equivalent must be completed to obtain the degree.

Advisement
Students should meet with a faculty advisor at least annually for course and program review. Call 801-626-6057 for more information or to schedule an appointment.

Admission Process
To be eligible for admission to the Radiation Therapy program, the following criteria must be met:
1. Application and admission to Weber State University.
2. Demonstrate ability to achieve scholastically.
3. Complete an application to the desired program and pay the $20 application fee.
4. Provide the following with the application:
   a. transcripts from hospital certificate programs or colleges and universities;
   b. high school transcripts, if no previous college experience; and
   c. copy of ARRT certification or equivalent.
5. Have all pertinent material on file by January 10.
6. Have major specified as Radiation Therapy.

Course Requirements for Certification

Support Courses
- RADT 3043 Medical Ethics & Law (3)
- RADT 3253 Patient Care & Assessment III (3)
- RADT 3403 Radiobiology & Health Physics (3)
- RADT 3463 Computerized Imaging (3)

Radiation Therapy Courses
- RATH 4330 Radiation Therapy Physics (3)
- RATH 4342 Intro to Treatment Planning (3)
- RATH 4410 Radiation Oncology I (3)
- RATH 4412 Radiation Oncology II (3)
- RATH 4414 Radiation Oncology III (3)
- RATH 4425 Oncology Patient Care & Education (3)
- RATH 4444 Advanced Treatment Planning/Brachytherapy (3)
- RATH SI4446 Quality Assurance (3)
- RATH 4861 Clinical Education I (3)
- RATH 4862 Clinical Education II (3)
- RATH 4863 Clinical Education III (3)
- RATH 4913 Comprehensive Review (3)

Elective Courses
- RADT 3123 Sectional Anatomy (3)
- RADT 3143 Imaging Pathophysiology (3)
- RADT 3263 Diagnostic Services Pharmacology II (3)
- RADT 3423 Federal Regulations (3)
- RADT 4992 Seminar (2)

D I R E C T O R Y  S E C T I O N

R A D I AT I O N  T H E R A P Y  C O U R S E S  -  R A T H

RATH 4330. Radiation Therapy Physics (3)

RATH 4342. Introduction to Treatment Planning (3)
Basic quantities and concepts in radiotherapeutic dosimetry. Current aspects of the anatomical and physical considerations involved in planning and delivery of the therapy prescription.

RATH 4410. Radiation Oncology I (3)
Pathology of cancer; combined therapy and surgery; chemotherapy and radiation therapy; clinical application of treatment techniques; and case studies.

RATH 4412. Radiation Oncology II (3)
Pathology of cancer; combined therapy and surgery; chemotherapy and radiation therapy; clinical application of treatment techniques; and case studies.

RATH 4414. Radiation Oncology III (3)
Pathology of cancer; combined therapy and surgery; chemotherapy and radiation therapy; clinical application of treatment techniques; and case studies.

RATH 4425. Oncology Patient Care and Education (3)
Supportive care of the cancer patient with emphasis on nutritional therapy, use of blood and blood products, management of cancer pain, infections and adverse effects of treatment. Meeting the physical and psychological needs of the curative and terminal patient will be addressed. Methods of educating the oncology patient will be addressed.

RATH 4444. Advanced Treatment Planning/Brachytherapy (3)
Prescription interpretation, nuclide implants, brachytherapy and treatment techniques involving hyperthermia. Beam modification devices and theory of beam placement will be discussed.

RATH SI4446. Quality Assurance (3)
Establishment of a quality assurance program for linear accelerators, simulators and therapeutic isotopes.

RATH 4861. Clinical Education I (3)
Clinical education designed to facilitate transfer of didactic instruction to practical clinical practice.

RATH 4862. Clinical Education II (3)
Clinical education designed to facilitate transfer of didactic instruction to practical clinical practice.

RATH 4863. Clinical Education III (3)
Clinical education designed to facilitate transfer of didactic instruction to practical clinical practice.

RATH 4913. Comprehensive Review (3)
Review of all didactic and clinical courses and competencies. Guest lecturer and multiple mock registry examinations will be presented.

R E S P I R A T O R Y  T H E R A P Y

Department Chair: Mr. Mitchell Oki
Medical Director: Christopher Anderson, M.D.
Location: Marriott Allied Health Building, Rm 309
Telephone Contact: Marylyn Likwartz 801-626-7071
Professor: Georgine Bills; Associate Professor: Paul Eberle;
Instructors: Janelle Gardiner, Mich Oki, Lisa Trujillo

Respiratory care professionals are actively involved, as members of the health care team, in the diagnosis, treatment, management, education, and long-term care of patients with cardiopulmonary problems. These patients may be in the newborn nursery, surgical/medical/rehabilitation units, outpatient clinics, Emergency Room, or cardiac/shock-trauma/burn/neurologic intensive care units. Respiratory Care Practitioners [RCPs] are employed in both acute and long-term care hospitals, skilled nursing facilities, and home health agencies.

Licensed RCPs perform therapeutic and diagnostic procedures under the direction of a physician. Respiratory care practitioners are competent in basic patient care and assessment, medical gas administration, aerosol and humidity therapy, medication administration, hyperinflation techniques, bronchopulmonary drainage and percussion, mechanical ventilation, airway management, advanced cardiac life support, pulmonary function studies, and blood gas sampling and analysis. Patient education, smoking cessation/nicotine intervention, and health promotion are also included in the RCP scope of practice.

The respiratory therapy program follows a career-ladder approach from the entry-level through a Bachelor of Science degree. Students may exit at entry-level, advanced-level, or finish a bachelor of science program. Entry-level requires two academic years, leads to an Associate of Applied Science degree, and provides eligibility for licensure. Advanced-level requires C.R.T. plus two academic years and leads to an Associate of Science degree.
Licensure
Applicants who have been convicted of a felony, treated for serious mental illness or substance abuse should discuss their eligibility status with the Utah Department of Professional Licensing. Acceptance to the respiratory therapy program does not assure eligibility for a RCP license. The Utah Department of Professional Licensing makes final decisions on issuance of professional licensure. Any student that is convicted of a felony will be dismissed from the program.

Respiratory Therapy

BACHELOR DEGREE (B.S.)

- Program Prerequisite: Completion of A.S. degree in respiratory therapy or Certificate of Completion from an accredited, advanced respiratory therapist program (R.T.I. eligible).
- Grade Requirements: A grade of ‘C’ or better in each course required by this program (a ’C-‘ is not acceptable.) CR/NC courses in this program require a ’C‘ or better to receive CR. A GPA of 2.75 is required to enter the program.
- Credit Hour Requirements: A total of 120 credits is required for graduation (includes A.S. degree requirements) – 67 of these are REST credits. A total of 40 upper division credit hours is required (courses numbered 3000 and above) – 30 of these are required REST credits. Departmental standards are applied to independent projects and directed readings.

Advisement
All respiratory therapy students are required to meet with a faculty advisor before beginning bachelor degree courses, and at least annually after entering program, and complete an academic contract specifying major courses, approved electives, and graduation requirements. Call 801-626-7071 for more information or to schedule an appointment.

During June, July and August, students may contact a counselor in the Dr. Ezekiel R. Dumke College of Health Professions’ Admission & Counseling Office (Marriott Allied Health Building, Room 108, Phone 801-626-6028) for program information and an application, if a faculty member of the Respiratory Therapy Program is not available.

Admissions Requirements
Declare your program of study (see page 18). Complete A.S. degree requirements (or provide Certificate of Completion from an accredited, advanced respiratory therapist program). Meet with faculty advisor and establish an academic contract.

General Education
Refer to pages 36-41 for Bachelor of Science requirements. Of the Quantitative Literacy courses [MATH QL1030, QL1040, or QL1050], MATH QL1030 Contemporary Mathematics is the preferred course for program completion. The following general education courses will fulfill both general education and program requirements: PSY SS1010 or PSY SS2200, ENGL EN1010, COMM HU1020 or COMM HU2110, and either HTHS 1110/1111 or introductory-level courses in some of the basic sciences (human biology, chemistry and microbiology).

Consult with department advisor or Dr. Ezekiel R. Dumke College of Health Professions Admission Advisor regarding general education guidelines.

Course Requirements for B.S. Degree

Respiratory Therapy Courses Required
Complete the requirements for the A.S. degree, which requires 61 credit hours, including 25 upper division REST credit hours. Students entering the B.S. program with a Certificate of Completion in lieu of the A.S. degree must satisfy the following courses or equivalent:

| REST 3210 | Adv Cardiopulmonary Anat/Phys (2) |
| REST 3220 | Adv Cardiopulmonary Patho (2) |
| REST 3230 | Adv Cardiopulmonary Tech (2) |
| REST 3260 | Neonatal & Pediatric Resp Care (2) |
| REST 3270 | Adult Critical Care (2) |
| REST 3280 | Patient Care Cont/Qual GMGT (3) |
| REST 3760 | Neonatal & Ped Resp Care/Clinical (4) |
| REST 3770 | Adult Critical Care/Clinical (4) |
| REST 3780 | Clinical Applications (2) |
| REST 41300 | Clinical Simulation Seminar (2) |

Additional Required Courses
All students must complete an additional five (5) upper division credit hours in Seminars, Independent Projects and Directed Readings. Departmental standards are developed which specify content of certain projects, remaining credits are "elective" with content approved by program advisor.

| REST 4800 | Independent Projects (1-6) |
| REST 4830 | Directed Readings (1-3) |
| REST 4990 | Seminar (2) |

Suggested Course Sequence
Please refer to this program in the on-line catalog (weber.edu/catalog) and/or contact the department for a suggested course sequence.

Respiratory Therapy

MINOR/B.I.S. CONCENTRATION

- Grade Requirements: A grade of ‘C’ or better in each course required by this program (a ’C-‘ is not acceptable.) CR/NC courses in this program require a ’C‘ or better to receive CR. A minimum cumulative GPA of 2.75 is required for graduation.
- Credit Hour Requirements: A minimum of 18 credit hours, all upper division REST courses, are required.

Respiratory Therapy is an approved minor for the following bachelor degrees: Health Services Administration; Health Education, Training, and Promotion; Long-Term Care Administration; Technical Sales. Respiratory Therapy may also be used as an area of concentration for the B.I.S. degree. Refer to the Interdisciplinary Studies section of this catalog for B.I.S. degree requirements.

Course Requirements for Minor/B.I.S. Concentration
Select 18 credit hours of upper division REST courses in consultation with an advisor.

Entry-Level Respiratory Therapist

ASSOCIATE OF APPLIED SCIENCE (A.A.S.)

- Program Prerequisites: Completion of all prerequisite courses with a grade of ’C‘ or better (’C-‘ are not acceptable in prerequisite courses.) In addition, students must complete an application/selection process, which requires prior completion of REST 1400 or current CPR certification at the BLS-C level (also see Admissions Requirements below).
- Grade Requirements: A grade of ‘C’ or better in each course is required by this program (a ’C-‘ is not acceptable.) CR/NC courses in this program require a ’C‘ or better to receive CR. A cumulative GPA of 2.5 is required to enter the program.
Credit Hour Requirements: A total of 60-67 credit hours is required for graduation – 38 of these are required REST courses and 18 are required general education courses.

Admissions Requirements

Students may contact a counselor in the Dr. Ezekiel R. Dumke College of Health Professions’ Admission & Counseling Office (Marriott Allied Health Building, Room 108, Phone 801-626-6028) for program information and an application.

Admissions Requirements

Declare your program of study (see page 18). Meet with a Dumke College of Health Professions advisor and then file a Program Application (at the Dr. Ezekiel R. Dumke College of Health Professions Admissions Office, MHS 108 on or before February 1). Program selection criteria includes cumulative GPA, prerequisite GPA, completion of application process (including hospital visitation), previous healthcare experience, and formal Selection Committee interview. Complete all prerequisite courses with “C” (2.0) or better.

Admission requirements include the following:

- Graduation from high school or equivalent program
- Cumulative grade point average of 2.5
- Complete FBI criminal background check. Any student that is convicted of a felony will be dismissed from the program.
- Admission to Weber State University
- Completed application to Associate of Applied Science Degree and payment of the $20 application fee

Prerequisite Courses

<table>
<thead>
<tr>
<th>Course</th>
<th>Requirement</th>
</tr>
</thead>
<tbody>
<tr>
<td>REST 1540</td>
<td>Survey of Respiratory Therapy (1)</td>
</tr>
<tr>
<td>MATH 0960</td>
<td>First Course in Algebra (3) with grade of “C” or better</td>
</tr>
<tr>
<td>ENGL EN1010</td>
<td>Intro to Writing (3)</td>
</tr>
<tr>
<td>COMM HU2110</td>
<td>Intro to Interpersonal &amp; Small Group Communication (3)</td>
</tr>
<tr>
<td>or COMM HU1020</td>
<td>Principles of Public Speaking (3)</td>
</tr>
<tr>
<td>PSY SS1010</td>
<td>Introductory Psychology (3)</td>
</tr>
<tr>
<td>or PSY SS2000</td>
<td>Interpersonal Relationships (3)</td>
</tr>
<tr>
<td>HTHS 2230</td>
<td>Introductory Pathophysiology (3)</td>
</tr>
<tr>
<td>or MICR LS1153</td>
<td>Elementary Public Health (3)</td>
</tr>
<tr>
<td>REST 1560</td>
<td>Multi-Skilled Health Care Worker (1) or C.N.A. certificate</td>
</tr>
<tr>
<td>either</td>
<td>HTHS LS1110 Biomedical Core Lecture/Lab (4)</td>
</tr>
<tr>
<td>or HTHS 1111</td>
<td>Biomedical Core Lecture/Lab (continued) (4)</td>
</tr>
<tr>
<td>or introductory level courses in the three basic sciences:</td>
<td></td>
</tr>
<tr>
<td>CHEM PS1010</td>
<td>Introductory Chemistry (3)</td>
</tr>
<tr>
<td>MICR LS113</td>
<td>Introductory Microbiology (3)</td>
</tr>
<tr>
<td>ZOOL* 2200</td>
<td>Human Physiology (4)</td>
</tr>
</tbody>
</table>

*ZOOL LS1020 Human Biology (3) may be substituted for Human Physiology, General Education

Refer to pages 36-41 for Associate of Applied Science requirements. The following general education courses will fulfill both general education and program requirements: PSY SS1010 or PSY SS2000, ENGL EN1010, COMM HU1020 or COMM HU2110, and either HTHS 1110/1111 or introductory-level courses in some of the basic sciences (human biology, chemistry, and microbiology).

Consult with Academic Advising or Dr. Ezekiel R. Dumke College of Health Professions Admission Advisor regarding general education guidelines.

Course Requirements for A.A.S. Degree

Respiratory Therapy Courses Required (38 credit hours)

<table>
<thead>
<tr>
<th>Course</th>
<th>Requirement</th>
</tr>
</thead>
<tbody>
<tr>
<td>REST 1540</td>
<td>Survey of Respiratory Therapy (1)</td>
</tr>
<tr>
<td>REST 1560</td>
<td>Multi-Skilled Health Care Worker (1)</td>
</tr>
<tr>
<td>REST 2140</td>
<td>Basic Therapeutic Modalities Lab (3)</td>
</tr>
<tr>
<td>REST 2160</td>
<td>Equipment Management Lab (3)</td>
</tr>
<tr>
<td>REST 2210</td>
<td>Elem Cardiopulmonary Anal/Phys (3)</td>
</tr>
<tr>
<td>REST 2230</td>
<td>Elem Cardiopulmonary Patho (2)</td>
</tr>
<tr>
<td>REST 2250</td>
<td>Basic Patient Assessment (2)</td>
</tr>
<tr>
<td>REST 2270</td>
<td>Appl of Cardiopulmonary Diagnostics (4)</td>
</tr>
<tr>
<td>REST 2300</td>
<td>Basic Modalities in Respiratory Care, I (3)</td>
</tr>
<tr>
<td>REST 2310</td>
<td>Basic Modalities in Respiratory Care, II (3)</td>
</tr>
<tr>
<td>REST 2320</td>
<td>Mechanical Ventilation (2)</td>
</tr>
<tr>
<td>REST 2330</td>
<td>Comprehensive Review (1)</td>
</tr>
<tr>
<td>REST 2520</td>
<td>Principles of Pharmacology (2)</td>
</tr>
<tr>
<td>REST 2700</td>
<td>Clinical Applications (4)</td>
</tr>
<tr>
<td>REST 2710</td>
<td>Specialty Clinical Experiences (1)</td>
</tr>
<tr>
<td>REST 2720</td>
<td>Clinical Applications (3)</td>
</tr>
</tbody>
</table>

Suggested Course Sequence

Please refer to this program in the on-line catalog (weber.edu/catalog) and/or contact the department for a suggested course sequence.

Advanced Respiratory Therapist

ASSOCIATE OF SCIENCE (A.S.)

- Program Prerequisite: Must be N.B.R.C. credentialed as a Certified Respiratory Therapist (C.R.T.).
- Grade Requirements: A grade of “C” or better in each course is required by this program (a “C-” is not acceptable.) CR/NC courses in this program require a “C” or better to receive CR. A GPA of 2.75 is required to enter the program.
- Credit Hour Requirements: A total of 61 credit hours is required for graduation – 25 of these must be upper division REST courses.

Advisement

All respiratory therapy students are required to meet with a faculty advisor before applying for program. Students are informed regarding program costs, structure, and academic and performance standards. Call 801-626-7071 for more information or to schedule an appointment.

During June, July and August, students may contact a counselor in the Dr. Ezekiel R. Dumke College of Health Professions’ Admission & Counseling Office (Marriott Allied Health Building, Room 108, Phone 801-626-6028) for program information and an application, if a faculty member of the Respiratory Therapy Program is not available.

Admissions Requirements

Declare your program of study (see page 18) and provide proof of N.B.R.C. credential as a Certified Respiratory Therapist (C.R.T.). Meet with a faculty advisor and then file a Program Application (at the Respiratory Therapy Office, MHS 309 on or before March 15). Program selection criteria include cumulative GPA and clinical performance. Selection into the advanced therapist program is prioritized as follows: 1) continuing WSU entry-level respiratory therapist graduates; 2) returning WSU entry-level respiratory therapist graduates; and 3) transferring entry-level respiratory therapist graduates.

Admission requirements include the following:

- NBRC credential as a Certified Respiratory Therapist
- Cumulative grade point average of 2.75
- Complete FBI criminal background check. Any student that is convicted of a felony will be dismissed from the program.

WEBER STATE UNIVERSITY 2005 – 2006 CATALOG
• University tier (completion of quantitative literacy and ENGL EN1010 and EN21010).
• Admission to Weber State University
• Completed Advanced Level program application

General Education
Refer to pages 36-41 for Associate of Science requirements. Of the Quantitative Literacy courses [MATH QL1030, QL1040, or QL1050]; MATH QL1030 Contemporary Mathematics is the preferred course for this program.
Consult with a program advisor or Dr. Ezekiel R. Dumke College of Health Professions Admission Advisor regarding general education guidelines.

Course Requirements for A.S. Degree

Respiratory Therapy Courses Required (25 credit hours)

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
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</thead>
<tbody>
<tr>
<td>REST 2120</td>
<td>Advanced Cardiopulmonary Anatomy &amp; Physiology (2)</td>
</tr>
<tr>
<td>REST 2120</td>
<td>Advanced Cardiopulmonary Pathophysiology (2)</td>
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<tr>
<td>REST 2320</td>
<td>Advanced Cardiopulmonary Tech (2)</td>
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<tr>
<td>REST 2320</td>
<td>Neonatal &amp; Pediatric Respiratory Care (2)</td>
</tr>
<tr>
<td>REST 2320</td>
<td>Adult Critical Care (2)</td>
</tr>
<tr>
<td>REST 2320</td>
<td>Adult Critical Care (2)</td>
</tr>
<tr>
<td>REST 2320</td>
<td>Patient Care Continuum / Quality Management (3)</td>
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<td>REST 2320</td>
<td>Respiratory Care/Clinical (4)</td>
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<tr>
<td>REST 2320</td>
<td>Adult Critical Care/Clinical (4)</td>
</tr>
<tr>
<td>REST 2320</td>
<td>Clinical Applications (2)</td>
</tr>
<tr>
<td>REST 23900</td>
<td>Clinical Simulation Seminar (2)</td>
</tr>
</tbody>
</table>

Suggested Course Sequence

Please refer to this program in the on-line catalog (weber.edu/catalog) and/or contact the department for a suggested course sequence.

RESPIRATORY THERAPY COURSES - REST

REST 1540. Survey of Respiratory Therapy (1) F S
This course is designed to introduce allied health and other students to the profession of respiratory therapy. It includes field trips, group discussions, lecture/demonstrations and limited lab activities. Open to all students.

REST 1560. Multi-Skilled Health Care Worker (1)
This course prepares students from different health care disciplines to understand the hospital environment, patient needs, and perform basic skills of patient care. Topics include the patient’s right to privacy, confidentiality, ethical, legal, and cultural issues, documentation, team building, age related concerns, medical terminology, and death and dying. Patient skills include vital signs, oxygen administration, specimen collection, personal care and cleanliness, environmental cleanliness, nutrition and diet, elimination, positioning and ambulating, patient safety and comfort, and OSHA guidelines for healthcare worker safety.

REST 2140. Introduction to Basic Therapeutic Modalities Lab (3) F
Introductory Laboratory course emphasizing basic patient interaction and assessment skills. Includes infection control, the administration of medical gases, humidity and aerosol, pharmacologic agents, hyperinflation therapy, airway clearance techniques and methods of care, and artificial ventilation.

REST 2160. Equipment Management Lab (3) S
Laboratory course emphasizing patient assessment skills relating to ventilation techniques and equipment. Includes equipment used by the respiratory care practitioner in initiating, troubleshooting, monitoring, and weaning from mechanical ventilation.

REST 2210. Elementary Cardiopulmonary Anatomy and Physiology (3) F
Cardiopulmonary anatomy and physiology specifically for the entry-level respiratory care practitioner. Includes physics of respiration, oxygen and carbon dioxide transport, and control of ventilation.

REST 2230. Cardiopulmonary Pathophysiology (2) F
A synopsis of medical and surgical cardiopulmonary disorders for the entry-level practitioner. Etiology, symptomatology, pathology, diagnosis, treatment, and prognosis of these disorders are presented.

REST 2250. Basic Patient Assessment (2) S
A basic orientation to patient assessment techniques used to obtain a patient medical history and physical examination. Discussion of pulmonary disease integrates assessment information with laboratory and radiographic data.

REST 2270. Application of Cardiopulmonary Diagnostics (4) S
Introduction to theory and clinical application of basic cardiopulmonary diagnostic studies, including simple spirometry, arterial and mixed venous blood gases, and electrocardiograms. Course emphasizes critical thinking skills in the application of diagnostic findings and utilizes case studies, class discussions, and extensive study guides.

REST 2300. Basic Modalities in Respiratory Care I (3) F
Theory and clinical application of basic therapies. Course includes indications, complications, hazards, equipment needed, side effects, and assessment for medical gases, humidity, aerosols, airway clearance, hyperinflation therapy, and pharmacologic agents. Course emphasizes patient assessment and critical thinking skills. Concurrent enrollment in REST 2140.

REST 2310. Basic Modalities in Respiratory Care II (3) F
Theory and clinical applications of airway management and artificial ventilation, including IPPB and introduction to modes of mechanical ventilation. Also includes the theory of invasive and non invasive monitoring technology, and equipment decontamination.

REST 2320. Essentials of Mechanical Ventilation (2) S
Course provides a basic understanding of essentials for mechanical ventilation. Includes determining the need for ventilatory support, the associated physiology and how ventilatory support is initiated, maintained, monitored, and discontinued.

REST 2330. Entry Level Respiratory Therapy Review (1) S
Course is a comprehensive review intended to prepare the student for the entry-level certification/licensure examination. The material covered is based on the examination matrix provided by the National Board for Respiratory Care (N.B.R.C.).

REST 2520. Principles of Pharmacology (2) F
Introduction to pharmacology, including general principles, autonomic and central nervous system agents, and cardiovascular agents. Also includes drugs used in managing renal, GI tract, endocrine, and infectious or neoplastic diseases and disorders.
REST 2700. Clinical Applications (4) F
Clinical rotations in various medical settings performing skills learned and practiced in REST 2140. Recommending and modifying basic therapies will be emphasized utilizing patient assessment skills and review of patient medical history. Concurrent enrollment in REST 2140.

REST 2710. Specialty Clinical Experiences (1) S
Clinical rotations in various medical settings providing the opportunity to observe and participate in various specialty areas within the profession, including PFTs, cardiac testing, EKGs, ABGs, and long-term artificial airway care. Concurrent enrollment in REST 2160.

REST 2720. Clinical Applications (3) S
Clinical rotations in various medical settings performing skills learned and practiced in REST 2140. Initiating, monitoring, and weaning from mechanical ventilation will be emphasized utilizing patient assessment skills. Case studies will be used to practice critical thinking skills in the management of ICU patients. Concurrent enrollment in REST 2160.

REST 2800. Independent Projects (1-3) F, S
Projects must meet departmental and professional goals and standards and must have instructor approval prior to beginning project; enrollment by permission only.

REST 2830. Directed Readings (1-2) F, S
Readings must meet departmental and professional goals and standards and must have instructor approval prior to beginning; enrollment by permission only.

REST 2920. Short Courses, Workshops, Institutes and Special Programs (1-3) F, S
Consult semester schedule for current offerings. The specific title and credit authorized will appear on student transcript.

REST 3210. Advanced Cardiopulmonary Anatomy and Physiology (2) F
Cardiopulmonary anatomy and physiology specifically for the therapist-level practitioner. Includes advanced anatomical considerations of the cardiac, pulmonary, and renal systems.

REST 3220. Advanced Cardiopulmonary Pathophysiology (2) S
Pathophysiology and diagnosis of coronary artery disease, fungal lung disease, neoplasms, HIV, ARDS, chest injuries, shock in relation to the care of the trauma patient, and a differentiation of the intracellular and extracellular fluid compartments.

REST 3230. Advanced Cardiopulmonary Technology (2) S
Advanced diagnostic procedures and interpretive skills in cardiopulmonary function, lung dynamics, specialty gases, blood gas analysis, and metabolic assessment.

REST 3260. Neonatal/Pediatric Respiratory Care (2) F, S
Pediatric and neonatal respiratory care with emphasis on intensive care activities, therapeutic procedures, life support modalities and fetal, neonatal, pediatric pathophysiology.

REST 3270. Adult Critical Care (2) F, S
Advanced adult respiratory intensive care, including hemodynamic monitoring, ventilation/perfusion monitoring, pulmonary assessment and airway management.

REST 3280. Patient Care Continuum/Quality Management (3) F, S
Theory and principles of pulmonary and spinal cord rehabilitation, polysomnography, discharge planning, patient education, quality management, home and self care, legal, ethical, and moral considerations of chronic and extended care.

REST 3500. Survey of Polysomnography (1)
Introduction to polysomnography as a profession. Course includes an overview of the polysomnogram, sleep disorders as they affect the general population, typical employment in the field, and employment opportunities. Also includes an introduction to the professional organization of sleep and requirements to become a registered polysomnographic technologist (R.PSG.T). Prerequisites: medical terminology, anatomy, and physiology or completion of entry-level respiratory therapy program or C.R.T., R.R.T., or R.N. credential.

REST 3501. Anatomy and Physiology of Sleep (3)
Introduction to the anatomy and physiology of the neurologic, cardiac, and respiratory systems during sleep. Basic anatomy and physiology of wake-sleep cycles are studied, with emphasis on changes that occur during varying stages of sleep and during common sleep disorders. Introduction to the EEG, EOG, EKG, EMG, and other polysomnography data recorders. Prerequisites: medical terminology, anatomy, and physiology or completion of entry-level respiratory therapy program or C.R.T., R.R.T., or R.N. credential.

REST 3502. Introduction to Sleep Disorders (2)
Course provides an overview of the history of sleep medicine, normal sleep physiology, effects of the sleep-wake stage, sleep disorders and abnormal sleep physiology, and an introduction to polysomnography (including patient interaction, sensor and lead placements, and instrumentation). Course also introduces the fundamentals of therapeutic interventions utilized to treat sleep disorders. Prerequisites: medical terminology, anatomy, and physiology or completion of entry-level respiratory therapy program or C.R.T., R.R.T., or R.N. credential.

REST 3503. Instrumentation and Computers in Polysomnography (2)
Course provides study of equipment, instrumentation, and recording devices utilized in polysomnography. Includes EEG waves, signal pathway and derivation of waves, impedance, sensitivity, time constants, amplifiers, filters, calibration, electrodes, artifacts (both equipment and patient-generated), computer basics, and monitoring devices. Prerequisites: REST 3500 and REST 3502 or medical terminology, human anatomy and human physiology.

REST 3504. Laboratory Practice of Instrumentation in Polysomnography (1)
Course provides practice and application of operating principles of equipment, instrumentation, and recording devices utilized in polysomnography. Includes EEG waves, signal pathway and derivation of waves, impedance, sensitivity, time constants, amplifiers, filters, calibration, electrodes, artifacts (both equipment and patient-generated), computer basics, and monitoring devices. Concurrent enrollment with REST 3503. Prerequisites: REST 3500 or medical terminology, human anatomy and human physiology.

REST 3505. Therapeutics of Managing Sleep Apnea (2)
Course provides current therapies and interventions for treatment of sleep apneas. Interventions include positive airway pressure therapy (nasal CPAP and bi-level CPAP), surgery, and dental devices. Patient compliance and outcomes of these treatments are included. Prerequisites: REST 3501 and REST 3502.
REST 3506. Advanced Technical Procedures (3)
Course provides detailed description and discussion of specific diagnostic procedures in PSG, including multiple sleep latency tests, maintenance of wakefulness test, REM behavior disorder studies, MMPI, movement disorders, TCM, nocturnal seizure disorders, esophageal balloon procedures, and others. Prerequisites: REST 3502 and REST 3503.

REST 3507. Event Recognition and Polysomnography Scoring (3)
Course provides advanced study of sleep stages and recognition of EEG characteristics of each stage. Multi-channel recording of breathing events, leg movements, ocular movements, cardiac and oxygenation monitoring, parasomnias, and interictal and ictal epileptic events are also presented. Course will include review and scoring of 12-hour polysomnography records to determine the overall sleep score. Prerequisites: REST 3501 and REST 3502.

REST 3508. Sleep Center Management (1)
Course is designed to prepare students for sleep center management in hospitals and independent facilities. Course includes sleep laboratory requirements for accreditation, personnel requirements and training, PSG study documentation, technician manuals, quality assurance, policies and procedures, and lab protocols. REST 3500 or credentialed as C.R.T., R.R.T., or R.N.

REST 3509. Cases in Sleep Medicine (2)
Course will include physician presentations or case studies of patients with a variety of sleep disorders. Case-based learning is applied in the context of patient presentation and initial interview and diagnostic findings, determination of appropriate sleep medicine studies, interpretation of patient findings, recommendation for patient therapy, and follow-up of patient compliance and outcome(s) of therapeutic intervention. Prerequisites: REST 3502 and REST 3505.

REST 3510. Clinical Practice I in Polysomnography (2)
Introduction to the sleep laboratory and the set-up, monitoring, and therapeutic interventions associated with polysomnography. Students will be oriented to patient interviewing and selection, OSHA standards, sleep laboratory standards, and confidentiality. Competency is demonstrated in patient set-up, producing a reliable PSG, recognizing artifact, and basic therapeutic interventions for common sleep disorders. Concurrent enrollment in REST 3503 and REST 3504. Prerequisite: REST 3502.

REST 3511. Clinical Practice II in Polysomnography (2)
Case-based clinical applications course. Course requires competency in complete patient management (patient referral and interview, physician consult, patient study[ies], therapeutic intervention and follow-up of patient compliance). Students will develop the patient history and physical, perform the study, score the patient record, interpret the report, apply therapy, and follow-up patient compliance. Concurrent enrollment in REST 3505. Prerequisites: REST 3502 and REST 3510.

REST 3512. Clinical Practice III in Polysomnography (4)
Clinical applications course providing experience in performing advanced technical procedures, including multiple sleep latency tests, maintenance of wakefulness tests, REM behavior disorders studies, MMPI, movement disorders, TCM, nocturnal seizure disorders, esophageal balloon procedures, and others. Concurrent enrollment in REST 3506. Prerequisites: REST 3502, REST 3510, and REST 3511.

REST 3760. Clinical Applications of Neonatal/Pediatric Respiratory Care (4) F S
The clinical application of pediatric and neonatal assessments as they relate to selection and use of respiratory care procedures and equipment specific for this patient population. To be taken concurrently with REST 3260.

REST 3770. Clinical Applications of Adult Critical Care (4) F S
Adult respiratory care in the intensive care setting [shock-trauma, thoracic, burn ICUs] with emphasis on hemodynamic monitoring, ventilation/perfusion monitoring, pulmonary assessment and airway management. To be taken concurrently with REST 3270.

REST 3780. Clinical Applications (2) F S
Clinical experiences related to REST 3280: rehabilitation, extended care, home care agencies, polysomnography, patient assessment and planning for discharge, and quality management. To be taken concurrently with REST 3280.

REST SI3900. Clinical Simulation Seminar (2) F S
Problem-based clinical concepts course: comprehensive program review including written and clinical simulation examinations.

REST 4800. Independent Projects (1-6) F S
Student designed, instructor approved projects which will further develop cognitive or psychomotor skills for the baccalaureate level respiratory care practitioner. Projects must meet departmental and professional goals and standards and must have instructor approval prior to beginning project. Enrollment by permission only.

REST 4830. Directed Readings (1-3) F S
Student designed, instructor approved readings which will further develop professional knowledge or understanding for the baccalaureate level respiratory care practitioner. Readings must meet departmental and professional goals and standards and must have instructor approval prior to beginning. Enrollment by permission only.

REST 4990. Senior Seminar (2)
Moderated discussion and/or laboratory experiences relating to current events in health care, legislative and ethical issues, and emergent technologies in respiratory care.