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.

Location: Marriott Allied Health Bldg., Suite 401  
Telephone Contact: Kristi Meaders 801-626-7117  
Admissions Advisement: 801-626-6128

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<tr>
<th>Department/Area Listing</th>
<th>Degrees Offered</th>
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<td>Honors Program</td>
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<td>Master of Health Administration</td>
<td>MASTER OF SCIENCE IN NURSING</td>
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<tr>
<td>Master of Science in Nursing</td>
<td>Bachelor of Arts and Bachelor of Science degree programs are offered in the following areas:</td>
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<tr>
<td>Clinical Laboratory Sciences</td>
<td>Clinical Laboratory Sciences</td>
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<tr>
<td>Pre-Medical/Pre-Dental/Pre-Veterinary</td>
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<tr>
<td>Dental Hygiene</td>
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<td>Health Administrative Services</td>
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<td>Health Information Technology</td>
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<td>Nursing Programs</td>
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<td>Diagnostic Medical Sonography</td>
<td>Associate of Science degree programs are offered in:</td>
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<tr>
<td>Nuclear Medicine</td>
<td>Dental Hygiene</td>
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<tr>
<td>Radiation Therapy</td>
<td>Health Sciences</td>
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<tr>
<td>Respiratory Therapy</td>
<td>Nursing</td>
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<tr>
<td>Department Chairs</td>
<td>Respiratory Therapy</td>
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<tr>
<td>Clinical Laboratory Sciences: Dr. Yasmen Simonian</td>
<td>Associate of Applied Science degree programs are offered in:</td>
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<tr>
<td>Dental Hygiene: Ms. Stephanie Bossenberger</td>
<td>Clinical Laboratory Sciences</td>
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<tr>
<td>Emergency Care and Rescue: Mr. Jeff Grunow</td>
<td>Emergency Care &amp; Rescue (Paramedic)</td>
</tr>
<tr>
<td>Health Sciences: Dr. Marie Kotter</td>
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<td>Health Administrative Services: Dr. Lloyd Burton</td>
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<tr>
<td>Nursing: Dr. Catherine Earl</td>
<td>Radiography</td>
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<td>Radiologic Sciences: Dr. Robert Walker</td>
<td>Respiratory Therapy</td>
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<tr>
<td>Respiratory Therapy: Mr. Paul Eberle</td>
<td>Minors are offered in:</td>
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<tr>
<td></td>
<td>Health Administrative Services</td>
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<td></td>
<td>Advanced Radiologic Sciences</td>
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<td></td>
<td>Respiratory Therapy</td>
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<td>Institutional Certificates are offered in:</td>
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<tr>
<td></td>
<td>Emergency Care &amp; Rescue (EMT-Paramedic)</td>
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<td></td>
<td>Healthcare Coding and Classification</td>
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<tr>
<td></td>
<td>Health Services Administration (graduate certificate)</td>
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<td></td>
<td>Practical Nursing</td>
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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 283).
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 3 hours of General Honors courses (it is suggested that students in Radiologic Sciences take a three-hour Honors Colloquium, HNRS 3900, course which will also give them upper division hours towards graduation); (3) take at least 12 of the required credit hours in major courses with an Honors component; (4) 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 the College of Health Professions website for more information. 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 component forms are found in the Honors Center. They should be filled out and turned into the Honors Advisor by the end of the third week of the semester.

**MASTER OF HEALTH ADMINISTRATION (MHA)**

**Director:** Dr. Lloyd R. Burton  
**Location:** Marriott Allied Health Building, Room 401  
**Telephone:** 801-626-7008  
**Web Site:** weber.edu/mha

The Master of Health Administration (MHA) program will prepare students for a career leading to executive leadership positions in the healthcare industry. It is specifically intended for individuals with leadership experience who want to further their careers. The MHA program is designed to enhance management, interpersonal, and organization skills and abilities. The program also strives to instill students with a desire and skills that focus on self-development, critical thinking and life-long learning.

**Minimum Admission Requirements**

- A Bachelor's Degree*
- GPA of 2.7 on a 4.0 scale
- GMAT or GRE scores**
- At least two years of supervisory experience
- Practicing physicians may be admitted without the GMAT/GRE or supervisory requirement

*Students with degrees other than health administration or business administration may be required to take leveling courses in statistics, financial and managerial accounting, managerial economics, health policy and economics, and health ethics and law.

**Significant weight is given to GRE aptitude (verbal and quantitative combined) total scores of at least 1000 or a GMAT aptitude score of at least 500. However, indications of academic ability as expressed by undergraduate grade point average and professional experience will be of greater importance than specific undergraduate background and GRE or GMAT scores.

**Grade Requirements**

To receive a Master of Health Administration degree, the student must complete all courses in the MHA program with a grade of "C" or higher, and maintain an overall program GPA of 2.7 or higher.

**Leveling Courses**

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
<th>Description</th>
</tr>
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<tbody>
<tr>
<td>HIM 3200</td>
<td>3</td>
<td>Biostatistics and Epidemiology (3) or equivalent</td>
</tr>
<tr>
<td>MBA 6020</td>
<td>3</td>
<td>Financial and Managerial Accounting (3)</td>
</tr>
<tr>
<td>MBA 6040</td>
<td>3</td>
<td>Managerial Economics (3)</td>
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</table>

**Course Requirements for MHA**

**Required Courses (36 credit hours)**

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
<th>Description</th>
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<tbody>
<tr>
<td>MHA 6000</td>
<td>3</td>
<td>Health Systems and the Healthcare Economy (3)</td>
</tr>
<tr>
<td>MHA 6100</td>
<td>3</td>
<td>Leading and Managing People in Health Care (3)</td>
</tr>
<tr>
<td>MHA 6200</td>
<td>3</td>
<td>Health Behavior &amp; Managerial Epidemiology (3)</td>
</tr>
<tr>
<td>MHA 6240</td>
<td>3</td>
<td>Human Resource Management in Healthcare (3)</td>
</tr>
<tr>
<td>MHA 6250</td>
<td>3</td>
<td>Health Care Finance (3)</td>
</tr>
<tr>
<td>MHA 6300</td>
<td>3</td>
<td>Quality Improvement and Risk Management (3)</td>
</tr>
<tr>
<td>MHA 6320</td>
<td>3</td>
<td>Health Policy and Economics (3)</td>
</tr>
<tr>
<td>MHA 6350</td>
<td>3</td>
<td>Quantitative Decision Making (3)</td>
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<tr>
<td>MHA 6400</td>
<td>3</td>
<td>Strategic Health Planning and Marketing (3)</td>
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<tr>
<td>MHA 6440</td>
<td>3</td>
<td>Health Ethics and Law (3)</td>
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<tr>
<td>MHA 6450</td>
<td>3</td>
<td>Managing Health Information (3)</td>
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<tr>
<td>MHA 6500</td>
<td>3</td>
<td>Field Work (3)</td>
</tr>
</tbody>
</table>

**Electives (6 credit hours)**

Select two of the following courses

- MHA Courses
  - MHA 6140 Long-term Care Administration (3)
  - MHA 6160 Medical Group Management (3)
  - MHA 6180 Health Care Entrepreneurship (3)
  - MHA 6310 Managed Care vs. Managed Health (3)
  - MHA 6360 Comparative International Health Systems (3)
  - MHA 6380 Patient Services Staff Management (3)

- MBA Courses
  - MBA 6110 Tools for the Ethical Manager (3)
  - MBA 6150 Logistics/Operations Management (3)
  - MBA 6170 Corporate Communications (3)
  - MBA 6540 Negotiations (3)

No more than nine (9) total hours, including leveling courses, may be taken from the MBA program.

**Graduate Institutional Certificate (GIC)**

- 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 certification 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**

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>MHA 6000</td>
<td>3</td>
<td>Health Systems &amp; the Healthcare Economy (3)</td>
</tr>
<tr>
<td>MHA 6200</td>
<td>3</td>
<td>Health Behavior &amp; Managerial Epidemiology (3)</td>
</tr>
<tr>
<td>MHA 6300</td>
<td>3</td>
<td>Quality Improvement and Risk Management (3)</td>
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<tr>
<td>MHA 6400</td>
<td>3</td>
<td>Strategic Health Planning and Marketing (3)</td>
</tr>
<tr>
<td>MHA 6500</td>
<td>3</td>
<td>Field Work (3)</td>
</tr>
</tbody>
</table>
### MHA 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.

### MHA 6100. Leading & Managing People in Health Care (3)
The course content emphasizes visionary leadership and management of diverse healthcare professionals in complex organizational structures. Individual leadership talents in handling various organizational challenges, such as leading organization change, building strong culture, developing effective teams, resolving conflicts, implementing effective motivational systems, and nurturing a learning organization are investigated.

### MHA 6140. Long-term Care Administration (3)
Seminar analysis of effect of chronic conditions and aging on delivery of health services, nursing homes and alternatives, mental health facilities and agencies, and rehabilitation facilities and services. Field trips and individual research projects.

### MHA 6160. Medical Group Management (3)

### MHA 6180. Health Care Entrepreneurship (3)
Develops an understanding of entrepreneurship, its importance for a healthcare organization and the health economy, and the challenges associated with promoting entrepreneurship within healthcare organizations.

### MHA 6200. Health Behavior and 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. Prerequisite: MHA 6000 (may be taken concurrently) or Instructor Approval.

### MHA 6240. Human Resources Management in Healthcare (3)
Human resources management in healthcare organizations including recruitment and selection of employees, benefits and compensation management, privileging and credentialing of health professionals, performance evaluation, staffing plans, labor relations and labor law relevant to health care organizations.

### MHA 6250. Health Care Finance (3)
Application of financial management techniques to decision making for health care providers. Financial management functions and organizations, financial statement analysis, working capital management, present value analysis, capital budgeting, cost of capital, variance analysis, financing techniques, and financial analysis case studies. Prerequisite: MHA 6000.

### MHA 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: MHA 6000 or Instructor Approval.

### MHA 6310. Managed Care vs. Managed Health (3)
Examination of factors that influence future direction of managed care. Changing relationships among major stakeholders. Broad areas of discussion including market dynamics, product characteristics, reimbursement methodologies, contracting issues, management information systems, government initiatives, legal and ethical issues, demand management strategies, and future trends.

### MHA 6320. Health Policy and Economics (3)
Economic analysis applied to health services sector; concept of efficiency applied to production and distribution of health services, health insurance, government programs, health care personnel, and health services organizations; current public policy issues; emphasis on student application of economic principles to healthcare issues.

### MHA 6350. Quantitative Decision Making (3)
Selected mathematical, statistical, and computer applications and statistical techniques applied to decision making in hospitals and health care organizations.

### MHA 6360. Comparative International Health Systems (3)
Analysis of key attributes of health care policy in selected countries and comparisons with the U.S. health care system. This course includes an international field trip and appropriate travel expenses will be required of the students. Please check with the course instructor for more details.

### MHA 6380. Patient Services Staff Management (3)
The course addresses and analyzes the roles and responsibilities of clinical administrators. Strategies and methodologies for leading and managing clinical professionals are discussed. The interface and communication challenges between clinical managers and administrative services managers will be addressed.

### MHA 6400. Strategic Health Planning and Marketing (3)
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 and development of comprehensive marketing plans. Prerequisites: MHA 6100 and MHA 6200.

### MHA 6440. Health Ethics and Law (3)
Selected legal principles and their application to health field. Legal aspects of corporate liability, medical malpractice, admission and discharge processes, medical staff bylaws, informed consent, nursing, patients' rights, medical records, and governmental regulation of personnel and health facilities.

### MHA 6450. Managing Health Information (3)
Introductory course that provides basic vocabulary and principles of modern information architectures. Computer networking and communication technologies needed to support modern information...
infrastructures. Differences between integrated and quilted systems are examined. Emphasis on management and use of information to support management decision making.

MHA 6500. Field Work (3)
This course provides a capstone experience where the student synthesizes theory learned in the classroom and applies it real world problem solving in health care organizations. 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: MHA 6000, MHA 6200, MHA 6300, MHA 6400.

MASTER OF SCIENCE IN NURSING (MSN)

Director: Dr. Catherine Earl, MSN, RN
Location: Marriott Allied Health Building, Room 437
Telephone Contact: Liz Morrison (801) 626-6142
DCHP Admission Office: (801) 626-6136

The MSN program is designed to prepare 1) nurse administrators, 2) college-level nursing faculty, and 3) nurse educators employed within healthcare institutions. The concentrations of nursing educator and nurse administrator will prepare students for advanced careers in nursing. Both concentrations are specifically intended for individuals with nursing experience who want to advance their careers as nurse administrators or college faculty.

The proposed MSN degree consists of 36 credit hours beyond the earned baccalaureate degree. This includes core courses (15 credits) and concentrations of nurse administrator or nurse educator (21 credits per concentration). At the completion of their graduate work, students may also choose to take a second level of advanced core courses (9 credits) which will prepare them to further their goals for continuing their educational. The WSU graduate nursing program is developed with "hybrid" courses. This means the majority of coursework will be online with a few scheduled classroom experiences.

- **Grade Requirements:** To earn the MSN degree, candidates must complete all MSN program courses with a grade of "B+" or higher and maintain an overall program GPA of 3.0 or higher
- **Credit Hour Requirements:** A total of 36 credit hours (4 semesters/9 hours per semester) is required.

### Application Requirements

DCHP Admission Office (801) 626-6136

Minimum Admission Requirements:

Admission is competitive; therefore, the listed criteria for admission should be considered as minimum standards. Applicants should apply for admission to or be a current matriculated student of Weber State University.

Applications are available annually and may be obtained from the Nursing Admission Counselor in Room MH108B, Dr. Ezeikel R. Dumke College of Health Professions. Applications become available January 1 of each year and will be due by March 1. Admissions is for fall each year. Applicants will need to make a choice between the Administrative or Education Concentration on their application.

A $70 application fee must be paid at the time the application is submitted. Admission applications are reviewed and evaluated by the Nursing Program Admissions and Advancement Committee. Please contact DCHP Admissions Office (801) 626-6136.

## Course Requirements for MSN

### Required MSN Core Courses (15 credit hours)

- MSN 6100 Research Methods (3)
- MSN 6120 Research and Statistics (3)
- MSN 6140 Nursing Leadership: Conceptual Basis of Professional Socialization (3)
- MSN 6160 Evidence-Based Practice (3)
- MSN 6180 Improving Patient Care and Nursing Practice Through Information Systems (3)

### Concentration Courses Required (21 credit hours)

**Select one of the following concentrations**

#### Educator Concentration

- MSN 6500 Theoretical Foundations in Nursing Education (3)
- MSN 6520 Curriculum Development for Nursing Educators (3)
- MSN 6540 Measurement of Competence and Outcomes in Nursing Education (3)
- MSN 6560 Socialization in the Role of Nursing Educator (3)
- MSN 6580 Clinical Nursing Instruction in Higher Education and Community Settings (3)
- MSN 6600 Nursing Instruction in Higher Education and Community Settings (3)
- MSN 6700 Teaching Residency (3)

#### Administrator Concentration

- MSN 6200 Theoretical Foundations of Nursing Administration (3)
- MSN 6300 Quality Improvement, Patient Safety and Risk Issues in Patient Care Delivery (3)
- MSN 6324 Financial Issues in Nursing Administration (3)
- MSN 6340 Compliance with Legal and Regulatory Systems in Patient Care Delivery (3)
- MSN 6360 Scope and Practice of Nursing Administration (3)
- MSN 6380 Retaining and Developing a Competent Workforce in Nursing (3)
- MSN 6400 Nursing Administrator Residency (3)

### Advanced Core Elective Options (9 credit hours)

Please see Admission Advisors.

### MASTER OF NURSING COURSES - MSN

#### MSN 6100. Research Methods (3)

This course assists students to critique, evaluate, and use research within their nursing clinical practice. The research process including the theoretical/conceptual basis of nursing research, methods, and critique strategies are examined in detail. There is a focus on evaluation of published research reports to evaluate the appropriateness of application of findings to clinical practice. Co-requisites: MSN 6140, 6180.

#### MSN 6120. Research and Statistics (3)

This course focuses on the development of research skills used to evaluate data in support of the utilization of findings in clinical practice. Skills related to statistical analysis of quantitative data will be emphasized. Parametric and non-parametric methods of statistical analysis will be discussed. Prerequisites: MSN 6100, 6140, 6180. Co-requisite: MSN 6160.

#### MSN 6140. Nursing Leadership: Conceptual Basis of Professional Socialization (3)

This course is designed for students to explore the factors that need to be considered as they work to build relationships which promote citizenship, collegiality and collaboration. The students will engage in discussions which foster the development of professional attitudes and inter-professional cooperation. Forming the basis of the nurse as...
a professional will be an appreciation of nursing conceptual models including patterns of knowing in the science of nursing. The students will examine Krathwohl’s taxonomy of the affective domain which promotes the evolution of affective learning as it interplays to build relationships. Co-requisites: MSN 6100, 6180.

MSN 6160. Evidence-Based Practice (3)
This course will examine the four steps of EBP, asking the compelling question, searching for the best evidence critical appraisal and synthesis of the evidence obtained from systematic review or meta analysis of relevant randomized controlled trials (RCTs). Case control and cohort studies; descriptive, quantitative and qualitative studies, opinions of authorities and/or reports of expert committees. Emphasis will be placed on the use of best available evidence as the core element required for decision making. This course will examine priorities for academic and clinical research, strategies for overcoming barriers to evidence based practice and strategies for synthesizing clinical research findings. Prerequisites: MSN 6100, 6140, 6180. Co-requisite: MSN 6120.

MSN 6180. Improving Patient Care and Nursing Practice Through Information Systems (3)
This course provides an overview of the administrative perspective of information technology. Principles of technology and data utilization as analytical tools to improve healthcare decision-making are addressed. Legal and ethical issues related to information technology are explored. Co-requisites: MSN 6100, 6140.

MSN 6200. Theoretical Foundations of Nursing Administration (3)
This course addresses a foundational framework for the practice of nursing administration. The context of clinical administrative practice is examined pertinent to the nurse leader’s integration of clinical expertise and management knowledge within the healthcare system. Prerequisite: MSN 6100, 6140, 6180.

MSN 6300. Quality Improvement, Patient Safety and Risk Issues in Patient Care Delivery (3)
This course addresses quality improvement, national patient safety guidelines and examines institutional risk and liability issues. The nurse administrator’s responsibility to develop and maintain a culture of safety, reduce and prevent harm to patients as a result of care and oversight of health outcome measurement and improvement of the patient experience are examined. Prerequisites: MSN 6100, 6120, 6140, 6160, 6180, 6200, 6324, 6340, 6360. Co-requisites: MSN 6380, 6400.

MSN 6324. Financial Issues in Nursing Administration (3)
This course provides a foundation for the nurse administrator’s accountability for fiscal resource planning, forecasting and resource allocation. Strategic planning, addressing future trends and all operating aspects with attendant processes for achievement of goals in the healthcare environment utilizing business and proactive approaches are examined. Prerequisites: MSN 6100, 6120, 6140, 6160, 6180, 6200. Co-requisites: MSN 6340, 6360.

MSN 6340. Compliance with Legal and Regulatory Systems in Patient Care Delivery (3)
This course addresses current healthcare policy, provides an overview of regulatory agencies and accreditation bodies. The nurse administrator’s responsibility to develop and maintain a healthcare environment which meets regulatory, accreditation and compliance standards is examined. Prerequisites: MSN 6100, 6120, 6140, 6160, 6180, 6200. Co-requisites: MSN 6324, 6360.

MSN 6360. Scope & Practice of Nursing Administration (3)
This course addresses the nurse administrator’s responsibility for the overall administration of patient care delivery services and representation of nursing services at the highest level of the organization and across a wide variety of settings. Common standards at all levels and in all settings which guide practice are addressed. Care delivery models pertinent to the patient population and setting and the overall care environment and support infrastructure for the caregiver are examined. Prerequisites: MSN 6100, 6120, 6140, 6160, 6180, 6200. Co-requisites: MSN 6324, 6340.

MSN 6380. Retaining and Developing a Competent Workforce in Nursing (3)
This course addresses the operational management and administration functions related to staffing, staff development, managerial issues including coaching, discipline and employee support and overall operations. An overview of labor relations in healthcare is addressed. Prerequisites: MSN 6100, 6120, 6140, 6160, 6180, 6200, 6324, 6340, 6360. Co-requisites: MSN 6300, 6400.

MSN 6400. Nursing Administrator Residency (3)
This on-site practicum is designed to prepare the student for a career in nursing administration and leadership. The student will participate in focused participative learning activities with nurse leaders at the executive, director or manager level. Potential residency focus areas; coordination and standardization of nursing practice, assurance of safe, high quality patient outcomes, fiscal accountability and resource allocation, implementation and evaluation of multiple care delivery systems. Prerequisites: MSN 6100, 6120, 6140, 6160, 6180, 6200, 6324, 6340, 6360. Co-requisites: MSN 6300, 6380.

MSN 6500. Theoretical Foundations in Nursing Education (3)
Nurse educators accept the challenge of building didactic and clinical learning opportunities supported by evidence-based and theoretically sound educational practice. This course presents a selection of teaching and learning theories and considers their practical application in diverse learning environments. Prerequisites: MSN 6100, 6140, 6180.

MSN 6520. Curriculum Development for Nursing Educators (3)
Curriculum design in nursing education, continuing education, and health care educational programs is supported by and interrelated to a myriad of factors. This course examines the influence of course development, desired outcomes, standards of nursing practice, education environments, reimbursement, accrediting bodies, legal and political influences as well as the practice of nursing on curriculum development. Selected curriculum plans and organizing frameworks will be considered and evaluated. Prerequisites: MSN 6100, 6120, 6140, 6160, 6180, 6500. Co-requisites: MSN 6540, 6560.

MSN 6540. Measurement of Competence and Outcomes in Nursing Education (3)
This course presents theories of measurement and evaluation along with strategies for implementing evaluation of student learning, program outcomes, and faculty performance targets. Focus is on accurate interpretation of evaluation data and support of relevant evidence supported changes to address evaluation results. Prerequisites: MSN 6100, 6120, 6140, 6160, 6180, 6500. Co-requisites: MSN 6520, 6560.

MSN 6560. Socialization in the Role of Nursing Educator (3)
Multiple political, economic, and environmental factors impact the role of the nurse educator. Understanding this enables the nurse educator to function proficiently in multiple roles. This course promotes development of personal strategies that will enable the student to perform successfully as an educator. Each student identifies a clinical focus and practice area to guide their program of study. Prerequisites: MSN 6100, 6120, 6140, 6160, 6180, 6500. Co-requisites: MSN 6520, 6540.

MSN 6580. Clinical Nursing Instruction in Higher Education and Community Settings (3)
This course guides the graduate nurse educator student to apply clinical teaching strategies to laboratory and clinical settings. The clinical component of this course is designed to provide opportunities for students to practice evidenced-based best teaching practices in
clinical instruction. Prerequisites: MSN 6100, 6120, 6140, 6160, 6180, 6500, 6520, 6540, 6560. Co-requisites: 6600, 6700.

MSN 6600. Nursing Instruction in Higher Education and Community Settings (3)
This course is designed to provide students with opportunities to examine and practice teaching strategies for application to classroom, community, and technology dependent environments. Prerequisites: MSN 6100, 6120, 6140, 6160, 6180, 6500, 6520, 6540, 6560. Co-requisites: MSN 6580, 6700.

MSN 6700. Teaching Residency (3)
Students will collaborate with faculty to design a teaching residency to highlight focused area expertise in applying teaching strategies and innovations under the guidance of an experienced educator. Prerequisites: MSN 6100, 6120, 6140, 6160, 6180, 6500, 6520, 6540, 6560. Co-requisites: MSN 6580, 6600.

MSN 6900. Social Epidemiology, Global Health Issues and Cultural Competency (3)
This course examines human diversity and healthcare through a global perspective. Various theoretical approaches for understanding a range of issues across populations are examined. The role of social epidemiology in developing proven and potential interventions to improve global health and reduce health disparities including measures of disease frequency, transmission, person, place and time in relation to variations of disease clusters will be examined. Analyzing the political factors which affect the global community, the practice and leadership roles of nursing across the global community are examined within this sociopolitical context. Prerequisites: MSN 6100, 6120, 6140, 6160, 6180 and completion of Administrator Track courses or Educator Track courses.

MSN 6920. Evidence Based Practice II (3)
This course will examine the fourth step in the EBP process, moving from a focus on finding, and evaluating the evidence to actively using it to produce quality outcomes. Essentials for implementation of the evidence will include the study of reference, philosophy and conceptual framework models. Work contextual factors as they relate to EB links to overall organizational improvement will be assessed. Implementation project steps and timelines will be discussed. Prerequisites: MSN 6100, 6120, 6140, 6160, 6180 and completion of Administrator Track courses or Educator Track courses.

Clinical Laboratory Sciences

Department Chair: Dr. Yasmen Simonian
CLT Program Coordinator: Leonard Gary Nielsen
Online Programs Coordinator: Kara Hansen-Suchy
Medical Advisor: Val B. Johnson, M.D.
Location: Marriott Allied Health Building, Rm 208
Telephone Contact: Ann Gesell 801-626-6118

Prerequisites:
- MSN 6100, 6120, 6140, 6160, 6180, 6500, 6520, 6540, 6560
- Co-requisites: MSN 6580, 6700

The Clinical Laboratory Sciences program is nationally accredited by the National Accrediting Agency for Clinical Laboratory Science (NAACLS) 8410 West Bryn Mawr Ave, Suite 670, Chicago, IL 60631-3415 (773) 714-8880 www.naacls.org

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 exams 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.

All 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 ASCP 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 (POLs) 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). For campus standards this is fulfilled by successful completion of CLS 1113 and CLS 1123 courses. Online students complete CLS 1000 and must be employed in a clinical laboratory setting.

Program Admissions
Bachelor's Degree
Students must have completed an AAS degree in Clinical Laboratory Sciences and/or be CLT/MLT 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.
All Distance Learning (online program) applicants must submit a one-time non-refundable $95.00 processing fee payable to the CLS Online Program. Application deadlines for online: October 1 for spring semester and March 1 for summer/fall semester.

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. All Distance Learning (online program) applicants must submit a one-time non-refundable $95.00 processing fee payable to the CLS Online Program. Application deadlines for online: October 1 for spring semester and March 1 for summer/fall semester.
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 can refer to the CLS Web site, www.weber.edu/cls, and 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 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’s Degree (BS)

| Program Prerequisite: Completion of AAS 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. |

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 AAS 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 (prior to clinical rotations and/or 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 BS Online program admission requirements, please refer to www.weber.edu/cls.

General Education Requirements
Refer to pages 37-43 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 BS Degree

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

<table>
<thead>
<tr>
<th>Course</th>
<th>Description</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>
<tr>
<td>CLS 2213</td>
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</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
Select one of the following tracks:

- **Track I**
  - CLS SI3302
  - CLS 3311
  - CLS 3313
  - CLS SI3314
  - CLS 3316
  - CLS 4401
  - CLS 4405
  - CLS 4409
  - CLS 4414
  - CLS 4417
  - CLS 4442
  - CLS 4446
  - CLS 4453
  - CLS 4454
  - CLS 4801
  - CHEM PS/SI1210 & CHEM SI1220
  - CHEM 2310 & CHEM SI1120
  - HTHS LS1110 & ZOOL 2200
  - HTHS 1111 & ZOOL 2100
  - MICR LS/SI2054 & MICR LS1113
  - MICR 3254 & HTHS 3328
  - MICR 3254 & HTHS 3329
  - Principles of Chemistry (5)*
  - Principles of Chemistry (5)*
  - Principles of Chemistry (5)*
  - Organic Chemistry I (5)*
  - Principles of Chemistry (5)*
  - Principles of Chemistry (5)*
  - Elementary Organic Bio-Chemistry (5)*
  - Biomedical Core (4)
  - Human Physiology (4)
  - Biomedical Care Lab (4)
  - Human Anatomy (4)
  - Elementary Physics (3)
  - Intro to Microbiology (3)
  - Immunology (4)
  - Pathophysiology of Cells & Tissues (2)
  - Pathophysiology of Organs & Systems (2)
• **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)
  - CLS 4801: Research Projects in Clinical Laboratory Sciences (1-3)

  - CHEM PS/SI1210: Principles of Chemistry (5)
  - CHEM SI2210: Principles of Chemistry (5)
  - CHEM 2310: Organic Chemistry I (5)
  - CHEM 2320: Organic Chemistry II (5)
  - or CHEM 3070: Biochemistry I (4)
  - MICR LS/SI2054: Principles of Microbiology (4)
  - or MICR LS1113: Intro to Microbiology (3)
  - MICR 3254: Immunology (4)
  - or HTHS 3328: Pathophysiology of Cells & Tissues (2)
  & HTHS 3329: Pathophysiology of Organs & Systems (2)
  - MICR 3305: Medical Microbiology (5)
  - or MICR 3603: Advanced Microbiology

  - PHYS PS/SI2010/L: College Physics I (5)
  - PHYS SI2020/L: College Physics II (5)
  - ZOOL 2100: Human Anatomy (4)
  - ZOOL 2200: Human Physiology (4)
  - ZOOL 3300: Genetics (4)

**Recommended Courses**

- CLS 2003: Applied Lab Math & Lab Statistics (3)
- CHEM 2320: Organic Chemistry II (4)*
- CHEM 3050: Instrumental Analysis (3)
- CHEM 3070: Biochemistry (4)*
- HIM 3010: Information Technology
  - in Health Care Management (2)
- HIM SI2200: Epidemiology & Biostatistics (3)
- HTHS 2230: Introductory Pathophysiology (4)

*Required for CLS Track II

**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)

**Suggested Course Sequence**

Please refer to this program in the online 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 an 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 requirement of CLS 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 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’S DEGREE (BS)**

Complete the requirements for the Clinical Laboratory Sciences Major in addition to CLS 3301 Online Orientation. For more information about the distance education online program, please contact Yasmen Simonian, Department Chair, at (801) 626-7080 or yasminian@weber.edu, or Ann Gessel, CLS Department secretary, at (801) 626-6118, or Kara Hansen-Suchy, CLS Online Programs Coordinator at (800) 848-7770, ext 8138, or khsuchy@weber.edu, or visit the CLS Homepage at weber.edu/cls.

**Clinical Laboratory Sciences**

**ASSOCIATE OF APPLIED SCIENCE DEGREE (AAS)**

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

**Grade Requirements:** A grade of "C+" 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 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.

**Advisement**

It is to the student’s advantage to meet with a CLS faculty advisor prior to beginning the program curriculum. All clinical laboratory science students are required to meet with a faculty advisor prior to application. The program will not accept the student’s application until this requirement is met. After initial advisement, students may meet with advisors as needed. Call 801-626-6118 for more information or to schedule an appointment.

**Admission Requirements**

1. Advisement 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)
   2. **course in biomedical core**
      - HTHS LS1110: Biomedical Core (5)
      - or ZOOL 2200: Human Physiology (4)
1 course from the following
CHEM S1120 Elementary Organic Bio-Chemistry (5)
CHEM S1220 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 DCHP Admision 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 (prior to clinical rotations and/or acceptance to program)

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

**Course Requirements for AAS Degree**

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

<table>
<thead>
<tr>
<th>Course</th>
<th>Description</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 Hematology and 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>
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<td>CLS 2212</td>
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<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>

**Support Courses Required (24-25 credit hours)**

<table>
<thead>
<tr>
<th>Course</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHEM PS/SI1110</td>
<td>Elementary Chemistry (5)</td>
</tr>
<tr>
<td>CHEM PS/SI1220</td>
<td>Principles of Chemistry I (5)</td>
</tr>
<tr>
<td>CHEM S1120</td>
<td>Principles of Chemistry II (5)</td>
</tr>
<tr>
<td>CHEM S2310</td>
<td>Organic Chemistry I (5)</td>
</tr>
<tr>
<td>HTHS LS1110</td>
<td>Biomedical Core (4)</td>
</tr>
<tr>
<td>HTHS 1111</td>
<td>Biomedical Core Lab (4)</td>
</tr>
<tr>
<td>CHEM 2003</td>
<td>Applied Lab Math &amp; Lab Statistics (3)</td>
</tr>
<tr>
<td>MICR LS1113</td>
<td>Intro to Microbiology (3)</td>
</tr>
<tr>
<td>MICR LS/SI2054</td>
<td>Principles of Microbiology (4)</td>
</tr>
</tbody>
</table>

* 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**

<table>
<thead>
<tr>
<th>Course</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>HIM SI3200</td>
<td>Epidemiology &amp; Biostatistics (3)</td>
</tr>
<tr>
<td>HTHS 2230</td>
<td>Intro Pathophysiology (3)</td>
</tr>
</tbody>
</table>

**Suggested Course Sequence**

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

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**DISTANCE EDUCATION ONLINE**

**CLINICAL LABORATORY SCIENCES**

**ASSOCIATE OF APPLIED SCIENCE DEGREE (AAS)**

Complete the requirements for the Clinical Laboratory Associate of Applied Science Degree in addition to CLS 1001 Online Orientation. For more information about the distance education online program, please contact Yasmen Simonian, Department Chair, at (801) 626-7080 or ysimonian@weber.edu, or Ann Gessel, 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 weber.edu/cls.

**CLINICAL LABORATORY ASSISTANT (CLA) CERTIFICATION**

*Acceptance into the CLT program required
**Acceptance into the CLS program required

**CLS 1000. Core Clinical Laboratory Skills (3)**

**Campus – not offered; Online – F, S, Su**

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 instrumentation in the areas of hematology, serology, urinalysis, and clinical chemistry. Prerequisite: Departmental Approval.

**CLS 1001. Online Orientation for AAS Degree (1)**

**Campus – not offered; Online – F, S, Su**

This course is designed to prepare the student for the online environment and specifics of the CLS program. Course components include: study and computer skills, learning styles, CLS student handbook, WebCT and library tutorial, faculty introductions, contact and troubleshooting information, and academic advisement tailor-made specifically for AAS degree CLS students online.

**CLS 1003. Introduction to Clinical Immunology (1)**

**Campus – not offered; Online* – S**

Principles and applications for laboratory testing including safe practices for laboratory practitioner, specimen quality assurance, basic concepts in clinical immunology, and clinical approaches to immunological testing. Prerequisite: CLS 1000.

**CLS 1113. Introduction to Clinical Laboratory Practices (4)**

**Campus – F, S, Su; Online* – F, S, Su**

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

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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 (S)  
**Course Syllabus:**  
CLS 2211, 2212, 2213, 2214, 2215  
Continuation of CLS 2211 with the introduction to methods for the diagnosis of clinically significant hemostatic abnormalities. Introduction to routine laboratory methods in hemostasis. Co-requisites: CLS 1113.

CLS 1154. Supervised Clinical Experience: First Year (1)  
**Course Syllabus:**  
This course provides an introduction to routine laboratory methods in hemostasis. Co-requisites: CLS 1113.

CLS 2003. Applied Laboratory Mathematics and Laboratory Statistics (3)  
**Course Syllabus:**  
This course is designed to complement the mathematics component of Clinical Chemistry 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)  
**Course Syllabus:**  
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/SI2120 and SI1220.

CLS 2212. Principles of Clinical Microbiology I (4)  
**Course Syllabus:**  
This course provides an in-depth coverage of clinically significant bacteria including epidemiology, pathogenicity, procedures for traditional laboratory identification and antimicrobial testing. Prerequisite: MICR SI1113 or MICR LS/SI2054 may be taken concurrently.

CLS 2213. Principles of Clinical Chemistry II (5)  
**Course Syllabus:**  
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)  
**Course Syllabus:**  
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)  
**Course Syllabus:**  
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 1113.

CLS 2256. Supervised Clinical Experience I (1)  
**Course Syllabus:**  
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)  
**Course Syllabus:**  
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 Reading (1-3)  
**Course Syllabus:**  
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)  
**Course Syllabus:**  
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 3301. Online Orientation for BS Degree (1)  
**Course Syllabus:**  
This course is designed to prepare the student for the online environment and specifics of the CLS program. Course components include: study and computer skills, learning styles, CLS student handbook, WebCT and library tutorial, faculty introductions, contact and troubleshooting information, academic advisement, Power Point Presentations, Access Database, and short referenced paper writing and using library resources tailor-made specifically for BS degree CLS students online.

CLS SI3302. Advanced Clinical Laboratory Practices I (4)  
**Course Syllabus:**  
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 work-load 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)  
**Course Syllabus:**  
Advanced blood banking theory and specialized procedures as they pertain to transfusion, quality assurance and regulatory issues pertaining to Transfusion Medicine. Prerequisite: CLS 2215.

CLS 3313. Advanced Clinical Hematology and Hemostasis (4)  
**Course Syllabus:**  
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 3123.
CLS 4401. Working Clinical Laboratory Theory I (1)  
**Campus** – F; **Online** – 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 4302. CLS 4442 must be taken concurrently.

CLS 4405. Working Clinical Laboratory Theory II (1)  
**Campus** – S; **Online** – 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)  
**Campus** – S; **Online** – F, S, Su  
Physician guided correlation between laboratory data and patient diagnosis. Prerequisite: CLS 4401 and 4442.

CLS 4414. Laboratory Teaching and Supervision I (2)  
**Campus** – F; **Online** – F, S, Su  
Students will apply sound instructional and pedagogical theory by writing learning objectives. The learning objectives will then apply to an instructional unit on a CLS topic of their choice which they prepare and present to the class. Each student will also participate as a laboratory teaching assistant (TA) in a CLS laboratory section assisting the faculty in the administration of the laboratory instruction. Each student will be assigned to a CLS course laboratory section in which expected behavior includes: active participation in laboratory teaching, demonstration of procedures, preparation of laboratory teaching materials and assisting laboratory faculty and students where ever needed. Prerequisites: CLS 4414. See online catalog for online course description.

CLS 4442. Applied Working Laboratory I (3)  
**Campus** – F; **Online** – F  
Prerequisites: Consent of instructor prior to registration. 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 process develops team building skills critical to the modern health care setting. Prerequisite: CLS 4401 must be taken concurrently.

CLS 4446. Applied Working Laboratory II (3)  
**Campus** – S; **Online** – S  
A continuation of 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 process develops team building skills critical to the modern health care setting. CLS 4446 expands to examine issues that cross all health care disciplines. Prerequisites: CLS 4401 and 4442. CLS 4405 must be taken concurrently.

CLS 4453. Supervised Clinical Experience I (1)  
**Campus** – F, S, Su; **Online** – F  
Credit for experience

CLS 4454. Supervised Clinical Experience II (1)  
**Campus** – F, S, Su; **Online** – F  
Credit for experience

CLS 4800. Special Problems (1-3)  
**Campus** – F, S; **Online** – not offered

CLS 4801. Research Projects in Clinical Laboratory Sciences (1-3)  
**Campus** – F, S; **Online** – F, S

Advance topics related to the correlation of clinical laboratory data to disease processes. Students may work as a group or independently with academic or clinical faculty. Consent of instructor prior to registration.

CLS 4920. Short Courses, Workshops, Institutes and Special Programs (1-3)  
**Campus** – F, S; **Online** – not offered

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 5101. Analytical Chemistry Applications in Clinical Laboratory Sciences (4)
Campus – not offered; Online – F, S, Su
Concepts, analytical methods, and clinical correlation of analytical chemistry as it applies to medical clinical chemistry are presented. Emphasis is on analytical methods and quality control practices covering carbohydrate, bilirubin, non-protein nitrogen, electrolyte, protein, lipid, enzyme, therapeutic drug monitoring, toxicology, and endocrinology chemistry. These topics will include clinical correlation with diabetes, hepatic, pancreatic, renal, and endocrine diseases. This non-laboratory course is designed for those who have held degrees in non-clinical laboratory science areas and wish to obtain current clinical education in analytical chemistry specific to the modern clinical hospital laboratory. Prerequisite: For clinical laboratory personnel.

CLS 5102. Clinical Applications in Hematology and Hemostasis (3)
Campus – not offered; Online – S, Su
This course covers the concepts, analytical methods, and clinical correlation of clinical hematology and hemostasis as it applies to the medical clinical laboratory will be presented in this online course. In addition to normal functions, the topics will include clinical correlation with various hematological and hemostatic disease processes. Current testing and instrumentation will be included as well as regulatory and competency information. This non-laboratory course is designed for individuals holding BS/BA degrees in non-clinical laboratory science and wish to obtain current clinical education in hematology and hemostasis specific to the modern clinical hospital laboratory. Additionally, CLS or CLT-degreed professionals may take this course to update their didactic skills and knowledge in Clinical Hematology and Hemostasis as it is practiced in today's hospitals and clinics. Prerequisite: For clinical laboratory personnel.

CLS 5103. Clinical Laboratory Microbiology I (3)
Campus – not offered; Online – F
This course provides an in-depth coverage of clinically significant bacteria including epidemiology, pathogenicity, procedures for traditional laboratory identification and antimicrobial testing. Prerequisite: For clinical laboratory personnel.

CLS 5104. Clinical Laboratory Microbiology II (3)
Campus – not offered; Online – S
This course is a continuation of CLS 5103, including clinical mycology, virology, parasitology and miscellaneous clinical bacteria. Prerequisite: CLS 5103. For clinical laboratory personnel.

Dental Hygiene

Department Chair: Ms. Stephanie Bossenberger, RDH, M.S.
Location: Allied Health, Room 475
Telephone Contact: Melody Neely 801-626-6130
Professors: Stephanie Bossenberger, Frances L. McConaughy;
Assistant Professors: Susan Alexander, Kami Hanson, Shelly Costley; Instructor: Jeffrey S. Perry

The dental hygienist is a health educator and clinician concerned with the prevention of dental disease. Dental hygienists perform their services in a variety of settings, and are members of the dental team who are licensed to provide services 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'S DEGREE (BS)

- Program Prerequisite: Successful completion of an Associate's Degree in Dental Hygiene, National Board Exam 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 AS degree and an additional 7 must be taken to complete the BS 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 37-43 for Bachelor of Science requirements. Any general education requirements not taken as part of the AS program must be completed in order to graduate with a BS degree.

Course Requirements for BS 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 BS 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 (AS)**

- **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 AS 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 2.5 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 1S1113 Intro Microbiology (3)

The Biomedical Core (HTHS 1110 and HTHS 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. Three more credit hours of approved Physical Science are needed to complete this category of the general education requirements.

**Other prerequisite courses include**

- HTHS 2230 Intro Pathophysiology (3)
- ENGL EN1010 Introductory College Writing (3)
- ENGL EN2010 Intermediate College 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 current transcripts 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 38-43 for Associate of Science requirements. The majority of general education requirements for the AS 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 AS Degree**

**Dental Science Courses Required**

- DENT 2201 Concepts of Community Dental Health (1)
- DENT 2205 Head/Neck and Dental Anatomy (2)
- DENT 2206 Clinical Dental Hygiene/Radiology (4)
- DENT 2207 Dental Hygiene I (3)
- DENT 2208 Radiology (2)
- DENT 2211 Oral Pathology (3)
- DENT 2215 Periodontology (2)
- DENT 2216 Clinical Dental Hygiene II (3)
- DENT 2217 Dental Hygiene II (3)
- DENT 2219 Dental Materials (1)
- DENT 2235 Dental Medicine I (2)
- DENT DV2250 Professional Ethics (1)
- DENT 3301 Community Dental Health Service Learning Lab (1)
- DENT 3305 Dental Medicine II (3)
- DENT 3336 Clinical Dental Hygiene III (4)
- DENT 3337 Dental Hygiene III (3)
- DENT 3346 Clinical Dental Hygiene IV (4)
- DENT 3347 Dental Hygiene IV (2)

**Dental Science Electives**

- DENT 2800 Individual Research (1-3)
- DENT 2830 Directed Readings, Projects and Research (1-3)
- DENT 2920 Short Courses, Workshops, Institutes & Special Programs (1-3)
- DENT 3130 Independent Study (1-3)
- DENT 4405 Dental Hygiene Clinical Teaching Practice (4)
- DENT 4410 Dental Hygiene Needs of the Geriatric Client (2)
- DENT SI4530 Principles & Application of Evidence-based Dental Hygiene Practice (2)
- DENT SI4780 Baccalaureate Thesis (3)
- DENT 4800 Individual Research (1-3)
- DENT 4810 Summer Elective Clinic (4)
- DENT 4830 Directed Readings, Projects & Research (1-3)
- DENT 4890 Advanced Community or Clinical Work Experience (2)
- DENT 4920 Short Courses, Workshops, Institutes & Special Programs (1-4)
- DENT 4990 Seminar (1-2)

**Suggested Course Sequence**

Please refer to this program in the online catalog (weber.edu/catalog) and/or contact the department for a suggested course sequence.
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. A maximum of nine hours may be accumulated with this course.

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 HTIBS and NRSR.

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 SI4780. 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, have successfully completed an accredited dental hygiene program, or have a work experience site that does not have direct patient care as its community role. 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 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
**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 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 sequence and include: (1) a “C” or better in English EN1010, Math ND0960, Anatomy and Physiology classes, and Medical Terminology; (2) an overall GPA of 2.7 or above; (3) EMT Intermediate or experience as an EMT-Basic within the last three years.

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

Weber State contracts with authorized agencies to train their employees for paramedic certification.

**EMERGENCY CARE AND RESCUE (PARAMEDIC)**

**ASSOCIATE OF APPLIED SCIENCE DEGREE (AAS)**

- **Program Prerequisite:** Acceptance to the program. See the Admission Requirements listed below.
- **Grade Requirements:** C or better in all prerequisite courses, with a minimum GPA of 2.7.
- **Credit Hour Requirements:** A total of 60-63 credit hours is required for graduation – 36 of these are required within the program. Three upper division credit hours (HLTH 3400) are required within the program.

**Advisement**

Emergency Care and Rescue students must meet with the Dumke College of Health Professions advisor prior to application. Call 801-626-6136 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 and/or National Registry certification with verification of experience

**General Education**

Refer to pages 38-43 for Associate of Applied Science Degree requirements. The following courses required for this program will also fulfill general education requirements: Biomedical core courses (see next page), COMM HU2110, PSY SS1010 and SOC SS/DV1020. MATH 1010 and ENGL EN2010 are required.

**Course Requirements for AAS Degree**

**Prerequisite and Paramedic Courses Required (50 credit hours)**

<table>
<thead>
<tr>
<th>Course</th>
<th>Description</th>
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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>
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<tr>
<td>PAR 1010*</td>
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</tbody>
</table>
PAR 1011* EMT Intermediate Intro Lab (2)
PAR 1020* EMT Intermediate (2)
PAR 1021* EMT Intermediate Lab (2)
PAR 2000 Intro to Paramedic Practice (4)
PAR 2010 Medical Emergencies (6)
PAR 2020 Traumatic Emergencies (3)
PAR 2030 Special Considerations in Paramedic Practice (3)
PAR 2040 Paramedic Clinical I (4)
PAR 2100 Advanced Paramedic Practice (4)
PAR 2110 Paramedic Clinical II (3)
PAR 2120 Paramedic Internship (9)

Biomedical core courses required (or acceptable equivalent)

**Must be taken in sequence**

HTHS LS1110 Health Sciences (Biomedical Core) (4)
HTHS 1111 Health Sciences (lab) (4)

Acceptable Equivalent to Biomedical core courses

ZOOL 2100 Human Anatomy (4)
ZOOL 2200 Human Physiology (4)

HTHS 1101 Medical Terminology (2)

Support Courses Required (15 credit hours)

COMM HU2110 Intro to Interpersonal Communication (3)
HLTH 3400 Substance Abuse Prevention (3)
HTHS 2230 Intro Pathophysiology (3)
PSY SS1010 Intro Psychology (3)
SOC SS/DV1020 Social Problems (3)

*Mandatory* 13-30 credit hours may be required.

Refer to the Admission Requirements in the previous column.

**Admission Requirements**

Refer to the Admission Requirements in the previous column.

**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 1110/1111* Biomedical Core Lecture/Lab (8)

or ZOOL 2100/2200 Human Anatomy/Physiology (8)

**EMT-Paramedic Core Courses (36 credit hours)**

PAR 2000 Intro to Paramedic Practice (4)

PAR 2010 Medical Emergencies (6)

PAR 2020 Traumatic Emergencies (3)

PAR 2030 Special Considerations in Paramedic Practice (3)

PAR 2040 Paramedic Clinical I (4)

PAR 2100 Advanced Paramedic Practice (4)

PAR 2110 Paramedic Clinical II (3)

PAR 2120 Paramedic Internship (9)

**Emergency Medical Technician**

**EMT Basic and Intermediate Certification**

**Basic**

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

**Required Courses (no prerequisites 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 can be taken in addition to the above courses and are offered at the Davis Area Technology College.

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 1000**

Emergency Medical Technician - Basic (2)

This course teaches the student to recognize and instruct the response to emergency calls to provide 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. (Must be taken with PAR 1001.)

**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. (Must be taken with PAR 1000.)
### PAR 1005. EMT-Basic Field Experience - I (3)
Minimum 120 hours of 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 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
Introduces the paramedic student to basic pathophysiology, pharmacology, airway management, multiple patient interaction and assessment skills. Includes professional considerations for the individual practitioner and patient. Basic knowledge of medical incident command, rescue awareness, hazardous materials incidents, and crime scene awareness is included. Prospective students must be EMT-B certified, accomplish Dumke College of Health Professions advising, complete the department application process, and then be accepted to the program prior to registration. PAR 1006 may be used as an experience prerequisite for PAR 2000.

### PAR 2010. Medical Emergencies (6) F
Prepares the student to recognize, assess and provide paramedic interventions related to medical emergencies within the circulatory, respiratory, nervous, endocrine, digestive, and urinary systems. Toxicology and environmental topics will be discussed. Current AHA standards will be utilized. Prerequisites: PAR 2000.

### PAR 2020. Traumatic Emergencies (3) S, Su
Prepares the student to recognize, assess and provide paramedic interventions related to bodily traumatic injuries. Current PHTLS/BTLS/ABLS principles are utilized. Prerequisites: PAR 2000 and 2010.

### PAR 2030. Special Considerations in Paramedic Practice (3) S, Su
Prepares the student to recognize, assess and provide paramedic interventions related to the special challenges posed by neonate, pediatric, obstetric, geriatrics, and psychiatric patients. Acute interventions for the chronic care patient is discussed. Current AHA/PEPP standards are utilized. Prerequisites: PAR 2000 and 2010.

### 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. ($98 lab fee)

### PAR 2100. Advanced Paramedic Practice (4) S, Su
Pathophysiology and advanced concepts applied to recognition of Advanced Live Support patient problems and treatment modalities. Student research and presentation projects are designed to meet professional goals and experiences. All paramedic terminal competencies will be re-verified prior to a recommendation to certify. Prerequisites: PAR 2000, 2010, 2020, 2030, 2040. ($98 lab fee)

### 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. National Registry EMT-P testing is required. Prerequisites: PAR 2000, 2010, 2020, 2030, 2040.

PAR 3110. Critical Care Transport Course (6)

This course will prepare experienced paramedics and registered nurses to become part of a highly functioning critical care transport team, often transporting high risk patients. Topics covered include;
1) History and role of critical care transport; 2) General principles of critical care transport, 3) Patient care principles 4) Trauma emergencies; 5) Medical emergencies; 6) Environmental emergencies 7) Special populations, and 8) Medical, legal and patient care issues in critical care transport. While the course is primarily oriented to ground transportation, the content presented will allow a student take the National Flight Nurse Paramedic exam. Prerequisites: Paramedic or registered nurse (2-3 years experience nominal) or department approval.

DEPARTMENT

Health Sciences

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

The Associate of Science in Health Sciences (ASHS) prepares students for entrance into a wide variety of health professions currently housed in the Dumke College of Health Professions (DCHP) such as Dental Hygiene, Nursing, Radiologic Technology, Respiratory Therapy, Clinical Laboratory Sciences, Health Information Systems and Health Administrative Services. It also serves as a pre-professional associate's degree for other Weber State University Bachelor of Science majors including: Anthropology, Gerontology, Health Education, Human Performance, Recreation, Social Work, Technical Sales and many Bachelor of Integrated Studies (BIS) programs.

HEALTH SCIENCES

ASSOCIATE OF SCIENCE (AS)

Grade Requirements: An overall GPA of 2.5 or higher is required.

Credit Hour Requirements: A total of 60 credit hours is required for graduation – 20 of these are required Health Sciences courses and 40 are required general education courses.

Advisement

Students may contact an advisor in the Dr. Ezekiel R. Dumke College of Health Professions Admissions Advisement Office (Marriott Allied Health Building, Room 108, Phone 801-626-6136, E-Mail healthprofessions@weber.edu) for program information.

General Education

Refer to pages 38-43 for Associate of Science requirements. The following courses required for the AS Degree in Health Sciences will also fulfill general education requirements: CHEM PS/SI1050*, COMM HU1020 or COMM HU2110, HTHS LS1110, MICR LS1113, NUTR LS1020, PSY SS1010, SOC SS/DV1010.

Consult with Academic Advising or the Dr. Ezekiel R. Dumke College of Health Professions Admissions Advisement office regarding general education guidelines.

Course Requirements for AS Degree

Health Sciences Courses Required (14 credit hours)

HTHS 1101 Medical Terminology (2)
HTHS LS1110/1111 Biomedical Core Lecture/Lab (8)
HTHS LS1100/1105/1106 Technology Enhanced Anatomy & Physiology (8)
HTHS 2230 Introductory Pathophysiology (3)
HTHS 2231 Introductory Pathophysiology Laboratory (1)

Health Sciences Support Courses (6 credit hours)

Select an additional 6 credit hours from the following Health Sciences courses:

HTHS 1108 Biocalculations for Health Professions (5)
HTHS 1120 Case Studies in Health Sciences (3)
HTHS 1130 Common Medicines (3)
HTHS 2240/3240 Introduction to Pharmacology (3)
HTHS 2830 Health Sciences Directed Readings (1-3)
HTHS 2990 Health Sciences Seminar (1-3)

Required Support Courses (18 credit hours)

CHEM PS1010 Introductory Chemistry (3)
or other General Education Chemistry course*
COMH HU1020 Principles of Public Speaking (3)
or COMM HU2110 Group Communication (3)
MICR LS1113 Introductory Microbiology (3)
NUTR LS1020 Foundations in Nutrition (3)
PSY SS1010 Introductory Psychology (3)
SOC SS/DV1010 Introduction to Sociology (3)

* Students interested in Nursing will want to choose CHEM PS/SI1050 or CHEM PS/SI1110 which will add an additional 2 credit hours.

HEALTH SCIENCES CORE COURSES - HTHS

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. Open to concurrent enrollment students only.

HTHS 1106. Technology Enhanced Anatomy & Physiology (continued) (4) S

Prerequisite: HTHS 1105. Four hours of Ednet and two hours of laboratory/recitation per week. Open to concurrent enrollment students only.

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 2240/3240. Introduction to Pharmacology (3)

HTHS 2240:
An 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 3238. Pathophysiology of Cells and Tissues (2) F, S
Biological interactions among cellular injuries, genetic disorders, neoplasia and inflammatory and immune disorders. A course in anatomy and physiology and/or pathophysiology with a "C" or better is strongly recommended. WSU Online class only.

HTHS 3239. Pathophysiology of Organs and Systems (2) F, S
Interpretation of disease pathogenesis and pathological symptoms. A course in anatomy and physiology and/or pathophysiology with a "C" or better is strongly recommended. WSU 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.

DEPARTMENT

HEALTH ADMINISTRATIVE SERVICES

Department Chair: Dr. Lloyd R. Burton
Location: Marriott Allied Health Building, Rm 218
Telephone Contact: Shari Love 801-626-7242
Professor: Kenneth Johnson; Associate Professors: Lloyd Burton, Patricia Shaw; Assistant Professors: Richard Dahlkemper, Heather Merkley, Michelle Snow
HIT Clinical Coordinator: Darcy Carter
Enrollment Director: Cory Moss

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 health 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 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's Degree except for Health Information Technology, which leads to an Associate of Applied Science degree, and Healthcare Coding and Classification, which leads to an Institutional Certificate. 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 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 workplace (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 Commission on Accreditation for Health Informatics and Management Education, making students eligible to write the national certifying 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 DBG and utilization review procedures; and supervising employees. The program is accredited by the Commission on Accreditation for Health Informatics and Information Management Education. 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 of Registered Health Information Technician.

### HEALTH ADMINISTRATIVE SERVICES

#### BACHELOR’S DEGREE (BS)

- **Program Prerequisite**: Health Information Management Emphasis requires previous completion of AAS 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 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 all courses required. (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. 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.  
3. Overall GPA of 2.5 is required.

#### General Education

Refer to pages 37-43 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 BS Degree

### HEALTH SERVICES ADMINISTRATION EMPHASIS

#### Prerequisite Courses Required

The following prerequisite courses must be completed with a grade of “C” or higher (a grade of “C-” is not acceptable) prior to enrollment in required courses of the program.

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>HAS 3000</td>
<td></td>
</tr>
<tr>
<td>HTHS 1101</td>
<td></td>
</tr>
<tr>
<td>HTHS LS1110/1111</td>
<td></td>
</tr>
<tr>
<td>or ZOOL LS1020</td>
<td></td>
</tr>
<tr>
<td>ACTG 2010</td>
<td></td>
</tr>
<tr>
<td>ENGL 1010 and ENGL 2010 Writing</td>
<td></td>
</tr>
<tr>
<td>Quantitative Literacy and Computer &amp; Information Literacy (see page 40)</td>
<td></td>
</tr>
</tbody>
</table>

#### Required Courses (41-45 credit hours)

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>HAS 3020</td>
<td></td>
</tr>
<tr>
<td>HAS 3150</td>
<td></td>
</tr>
</tbody>
</table>
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)

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>HLTH SS1030</td>
<td>Healthy Lifestyles</td>
</tr>
<tr>
<td>HTHS LS1110</td>
<td>Biomedical Core Lecture/Lab (8)</td>
</tr>
<tr>
<td>or ZOOL LS1020</td>
<td>Human Biology (3)</td>
</tr>
</tbody>
</table>

Courses Required (32 credit hours)

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>HLTH 3000</td>
<td>Foundations of Health Promotion (3)</td>
</tr>
<tr>
<td>HLTH 3200*</td>
<td>Methods Health Education (3)</td>
</tr>
<tr>
<td>HLTH SS4013</td>
<td>Health Promotion Research &amp; Assessment (3)</td>
</tr>
<tr>
<td>HLTH 4150</td>
<td>Needs Assessment &amp; Planning</td>
</tr>
<tr>
<td>HLTH 4860</td>
<td>Field Experience (3)</td>
</tr>
<tr>
<td>HLTH 4990</td>
<td>Senior Seminar (1)</td>
</tr>
<tr>
<td>HAS 3000</td>
<td>The Health Care System (3)</td>
</tr>
<tr>
<td>HAS/HLTH 3150</td>
<td>Community Health Agencies and Services (3)</td>
</tr>
<tr>
<td>HAS/SS4019</td>
<td>Cultural Diversity in Patient Education (3)</td>
</tr>
<tr>
<td>or HLTH DV3420</td>
<td>Multicultural Health &amp; Nutrition (3)</td>
</tr>
<tr>
<td>HAS 3230</td>
<td>Health Communication (3)</td>
</tr>
<tr>
<td>HTHS LS1110</td>
<td>Biomedical Core Lecture/Lab (8)</td>
</tr>
<tr>
<td>or ZOOL LS1020</td>
<td>Human Biology (3)</td>
</tr>
</tbody>
</table>

Elective Courses (6 credit hours required)

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>HAS 3230</td>
<td>Health Communication (3)</td>
</tr>
<tr>
<td>HAS 3240</td>
<td>Human Resource Development in Health Care (3)</td>
</tr>
<tr>
<td>HAS 3260</td>
<td>Health Care Administrative &amp; Supervisory Theory (3)</td>
</tr>
<tr>
<td>HAS 3750</td>
<td>Health Care Financial Administration (3)</td>
</tr>
<tr>
<td>HAS 4320</td>
<td>Health Care Economics and Politics (3)</td>
</tr>
<tr>
<td>HAS 4740</td>
<td>Senior Seminar (1)</td>
</tr>
<tr>
<td>HAS 4860</td>
<td>Practicum/Internship (2-6)</td>
</tr>
<tr>
<td>or HIM 4990</td>
<td>Baccalaureate Thesis &amp; Presentation (3)</td>
</tr>
<tr>
<td>HIM 3230</td>
<td>Classification Systems Topics</td>
</tr>
<tr>
<td>&amp; Reimbursement Issues (2)</td>
<td></td>
</tr>
<tr>
<td>HIM 3000</td>
<td>Computer Applications in Health Care (3)</td>
</tr>
<tr>
<td>HIM SI3200</td>
<td>Epidemiology &amp; Biostatistics (3)</td>
</tr>
<tr>
<td>HIM 3300</td>
<td>Intro to Quality Improvement in Health Care (3)</td>
</tr>
</tbody>
</table>

Support Courses Required: HLTH SS3100, EH 3900, HLTH 3200, or ECON 2201

Elective Courses (15 credit hours)

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>AT 3600</td>
<td>Ergonomics for Health and Safety (3)</td>
</tr>
<tr>
<td>HLTH 1110</td>
<td>Stress Management (3)</td>
</tr>
<tr>
<td>HLTH 1300</td>
<td>First Aid: Responding to Emergencies (2)</td>
</tr>
<tr>
<td>HLTH 2300</td>
<td>Emergency Response (3)</td>
</tr>
<tr>
<td>HLTH 3050</td>
<td>School Health Program (3)</td>
</tr>
<tr>
<td>HLTH 3320</td>
<td>Health/Nutrition Older Adult (3)</td>
</tr>
<tr>
<td>HLTH 3400</td>
<td>Substance Abuse Prevention (3)</td>
</tr>
<tr>
<td>HLTH 3500</td>
<td>Human Sexuality (3)</td>
</tr>
<tr>
<td>HLTH 4220</td>
<td>Women's Health Issues (3)</td>
</tr>
<tr>
<td>HLTH 4250</td>
<td>Contemporary Health Issues of Adolescents (2)</td>
</tr>
<tr>
<td>HLTH 4800</td>
<td>Individual Projects (1-3)</td>
</tr>
<tr>
<td>HLTH 4860</td>
<td>Field Experience (3)</td>
</tr>
<tr>
<td>HLTH 4920</td>
<td>Workshops (1)</td>
</tr>
<tr>
<td>HLTH/NUTR LS1020</td>
<td>Foundations in Nutrition (3)</td>
</tr>
<tr>
<td>HAS 3240</td>
<td>Human Resource Development in Health Care (3)</td>
</tr>
<tr>
<td>HAS 4400</td>
<td>Legal and Ethical Aspects of Health Administration (3)</td>
</tr>
<tr>
<td>HAS 4410*</td>
<td>Clinical Instructional Skills (3)</td>
</tr>
<tr>
<td>HAS 4420</td>
<td>Clinical Instructional Skills (3)</td>
</tr>
<tr>
<td>HTHS 1101</td>
<td>Medical Terminology (2)</td>
</tr>
<tr>
<td>HTHS 2230</td>
<td>Introductory Pathophysiology (3)</td>
</tr>
<tr>
<td>GERT 3000</td>
<td>Death and Dying (3)</td>
</tr>
<tr>
<td>NUTR 2320</td>
<td>Food Values, Diet Design &amp; Health (3)</td>
</tr>
<tr>
<td>NUTR 4420</td>
<td>Nutrition and Fitness (3)</td>
</tr>
<tr>
<td>PEP 2300</td>
<td>Health/Fitness Evaluation and Exercise Prescription (3)</td>
</tr>
</tbody>
</table>

*HAS 4410 may be substituted for HLTH 3200.

HEALTH INFORMATION MANAGEMENT EMPHASIS

Prerequisite: Previous completion of Health Information Technology program or equivalent curriculum.

Courses Required (32-33 credit hours)

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>HTHS SI3200</td>
<td>Epidemiology &amp; Biostatistics (3)</td>
</tr>
<tr>
<td>HTHS 3400</td>
<td>Health Care Networks &amp; Databases (3)</td>
</tr>
<tr>
<td>HTHS 3450</td>
<td>Health Care Systems Analysis &amp; Design (3)</td>
</tr>
<tr>
<td>HTHS 3500</td>
<td>Biomedical Research Support (2)</td>
</tr>
<tr>
<td>HTHS 4100</td>
<td>Health Info Services Management (3)</td>
</tr>
<tr>
<td>HAS 3020</td>
<td>Health Care Marketing (3)</td>
</tr>
<tr>
<td>HAS 3230</td>
<td>Health Communication (3)</td>
</tr>
<tr>
<td>HAS 3240</td>
<td>Human Resource Development in Health Care (3)</td>
</tr>
<tr>
<td>HAS 3260</td>
<td>Healthcare Administrative &amp; Supervisory Theory (3)</td>
</tr>
<tr>
<td>HAS 3750</td>
<td>Health Care Financial Administration (3)</td>
</tr>
<tr>
<td>HAS 4860</td>
<td>Practicum/Internship (4)</td>
</tr>
<tr>
<td>or HIM 4990</td>
<td>Baccalaureate Thesis &amp; Presentation (3)</td>
</tr>
</tbody>
</table>

Support Courses Required: IST TE2010, Business Computer Skills (1)

IST 3110 Information Technology for Business (3)

ACTG 2010 Survey of Accounting I (3)

LONG-TERM CARE ADMINISTRATION EMPHASIS

Prerequisite Courses Required

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

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>HAS 3000</td>
<td>The Health Care System (3)</td>
</tr>
<tr>
<td>HTHS 1101</td>
<td>Medical Terminology (2)</td>
</tr>
<tr>
<td>HTHS LS1110</td>
<td>Biomedical Core (8)</td>
</tr>
<tr>
<td>or ZOOL LS1020</td>
<td>Human Biology (3)</td>
</tr>
<tr>
<td>ACTG 2010</td>
<td>Survey of Accounting I (3)</td>
</tr>
<tr>
<td>ECON SS2010</td>
<td>Principles of Micro-Economics (3)</td>
</tr>
</tbody>
</table>

WEBER STATE UNIVERSITY 2008 – 2009 CATALOG
HEALTH INFORMATION MANAGEMENT EMPHASIS
Students in this minor must be majoring with a BS/BA degree in Information Systems and Technologies or Computer Science.

Required Courses (17 credit hours)

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>HIM 2000</td>
<td>Introduction to Health Information (4)</td>
<td></td>
</tr>
<tr>
<td>HIM 2330</td>
<td>Classification Systems</td>
<td></td>
</tr>
<tr>
<td>HIM 2500</td>
<td>Healthcare Data Access and Security (3)</td>
<td></td>
</tr>
<tr>
<td>HIM 3000</td>
<td>Computer Applications in Health Care (3)</td>
<td></td>
</tr>
<tr>
<td>HIM 3500</td>
<td>Biomedical Research Support (2)</td>
<td></td>
</tr>
<tr>
<td>HIM 4100</td>
<td>Health Information Services Management (3)</td>
<td></td>
</tr>
</tbody>
</table>

HEALTH PROMOTION EMPHASIS

Required Courses (16 credit hours)

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>HAS 3000</td>
<td>The Health Care System (3)</td>
<td></td>
</tr>
<tr>
<td>HAS 3150</td>
<td>Community Health Agencies and Services (3)</td>
<td></td>
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<tr>
<td>HLTH 3150</td>
<td>Community Health Agencies and Services (3)</td>
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<tr>
<td>HLTH 3000</td>
<td>Foundations of Health Promotion (3)</td>
<td></td>
</tr>
<tr>
<td>HLTH 3200</td>
<td>Methods in Health Education (3)</td>
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</tr>
<tr>
<td>HLTH 4150</td>
<td>Needs Assessment &amp; Planning</td>
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Elective Courses (6 credit hours minimum)

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>HLTH LS1020</td>
<td>Foundations in Nutrition (3)</td>
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<tr>
<td>HLTH 1110</td>
<td>Stress Management (3)</td>
<td></td>
</tr>
<tr>
<td>HLTH 1300</td>
<td>First Aid: Responding to Emergencies (3)</td>
<td></td>
</tr>
<tr>
<td>HLTH 2700</td>
<td>Consumer Health (3)</td>
<td></td>
</tr>
<tr>
<td>HLTH 3320</td>
<td>Health &amp; Nutrition in the Older Adult (3)</td>
<td></td>
</tr>
<tr>
<td>HLTH 3420</td>
<td>Substance Abuse Prevention (3)</td>
<td></td>
</tr>
<tr>
<td>HLTH DV3420</td>
<td>Multicultural Health &amp; Nutrition (3)</td>
<td></td>
</tr>
<tr>
<td>HLTH 3500</td>
<td>Human Sexuality (3)</td>
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</tr>
<tr>
<td>HLTH SI4013</td>
<td>Health Promotion Research &amp; Assessment</td>
<td></td>
</tr>
<tr>
<td>HLTH 4220</td>
<td>Women's Health Issues (3)</td>
<td></td>
</tr>
<tr>
<td>HLTH 4250</td>
<td>Contemporary Health Issues of Adolescents (2)</td>
<td></td>
</tr>
<tr>
<td>HLTH 4800</td>
<td>Individual Projects (1-3)</td>
<td></td>
</tr>
<tr>
<td>HLTH 4860</td>
<td>Field Experience (2-6)</td>
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<tr>
<td>HLTH 4890</td>
<td>Cooperative Work Experience (1-6)</td>
<td></td>
</tr>
<tr>
<td>HAS 3020</td>
<td>Health Care Marketing (3)</td>
<td></td>
</tr>
<tr>
<td>HAS DV3190</td>
<td>Cultural Diversity in Patient Education (3)</td>
<td></td>
</tr>
<tr>
<td>HAS 3230</td>
<td>Health Communication (3)</td>
<td></td>
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<tr>
<td>HAS 3240</td>
<td>Human Resource Development in Health Care (3)</td>
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<tr>
<td>HAS 3260</td>
<td>Health Care Administrative &amp; Supervisory Theory (3)</td>
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<tr>
<td>HAS 4320</td>
<td>Health Care Economics and Policy (3)</td>
<td></td>
</tr>
<tr>
<td>HAS 4400</td>
<td>Legal and Ethical Aspects of Health Admin (3)</td>
<td></td>
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<tr>
<td>HAS 4410*</td>
<td>Clinical Instructional Design &amp; Evaluation (3)</td>
<td></td>
</tr>
<tr>
<td>HAS 4420</td>
<td>Clinical Instructional Skills (3)</td>
<td></td>
</tr>
<tr>
<td>HAS 4620</td>
<td>International Health &amp; Health Care (3)</td>
<td></td>
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<tr>
<td>HIM SI3200</td>
<td>Epidemiology &amp; Biostatistics (3)</td>
<td></td>
</tr>
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</table>

*HAS 4410 may be substituted for HLTH 3200.

LONG-TERM CARE ADMINISTRATION EMPHASIS

Required Courses (12 credit hours)

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>HAS 3000</td>
<td>The Health Care System (3)</td>
<td></td>
</tr>
<tr>
<td>HAS 3020</td>
<td>Health Care Marketing (3)</td>
<td></td>
</tr>
<tr>
<td>HAS 3260</td>
<td>Health Care Administrative &amp; Supervisory Theory (3)</td>
<td></td>
</tr>
<tr>
<td>HAS 4520</td>
<td>Long-Term Care Administration (2)</td>
<td></td>
</tr>
<tr>
<td>HAS 4525</td>
<td>Health Facility Operations (1)</td>
<td></td>
</tr>
</tbody>
</table>

Elective Courses (6 credit hours required)

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>HAS 3150</td>
<td>Community Health Agencies and Services (3)</td>
<td></td>
</tr>
<tr>
<td>HAS DV3190</td>
<td>Cultural Diversity in Patient Education (3)</td>
<td></td>
</tr>
<tr>
<td>HAS 3230</td>
<td>Health Communication (3)</td>
<td></td>
</tr>
<tr>
<td>HAS 3240</td>
<td>Human Resource Development in Health Care (3)</td>
<td></td>
</tr>
</tbody>
</table>

HEALTH SERVICES ADMINISTRATION EMPHASIS

MINOR

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGL EN1010 and ENGL EN2010 Writing (6)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

CORE COURSES REQUIRED (41-45 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 Admin (3) | |
HAS 4520 | Long-Term Care Administration (2)         |         |
HAS 4525 | Health Communication (3)                 |         |
HAS 4526 | Health Facility Operations (3)            |         |
HAS 4620 | International Health & Health Care (3)    |         |
HAS 4990 | Practicum/Internship (2-6)                |         |
HIM 2330 | Classification Systems Topics & Reimbursement Issues (2) | |
HIM 3000 | Computer Applications in Health Care (3)  |         |
HIM SI3200 | Epidemiology & Biostatistics (3)         |         |
HIM 3300 | 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 4990 | Seminar (1)                                 |         |
HIMTH 2230 | Introductory Pathophysiology (3)            |         |
GER T 2220 | Intro to Social Gerontology (3)             |         |
HIM 3000 | Death & Dying (3)                           |         |
GER T 3120 | Aging: Adaptation & Behavior (3)            |         |

Grade Requirements: A grade of “C” or better in courses used toward the minor.
Credit Hour Requirements: Between 17 and 24 credit hours depending on emphasis.

The Health Care System (3)
Health Care Marketing (3)
Health Communication (3)
Health Care Financial Administration (3)
Health Care Economics and Policy (3)
Senior Seminar (1)
Individual Study (1-3)
Seminar (1)
Computer Applications in Health Care (3)
Epidemiology & Biostatistics (3)
Intro to Quality Improvement in Health Care (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 Accreditation for Health Informatics and Information Management Education.

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 credentialed examination. Students passing this national examination may use the professional designation Registered Health Information Technician.

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
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<tbody>
<tr>
<td>HAS 4320</td>
<td>Health Care Economics and Policy (3)</td>
</tr>
<tr>
<td>HAS 4400</td>
<td>Legal and Ethical Aspects of Health Administration (3)</td>
</tr>
<tr>
<td>HAS 4620</td>
<td>International Health &amp; Health Care (3)</td>
</tr>
<tr>
<td>HAS 4740</td>
<td>Senior Seminar (1)</td>
</tr>
<tr>
<td>HAS 4990</td>
<td>Seminar (1)</td>
</tr>
<tr>
<td>HIM 3000</td>
<td>Computer Applications in Health Care (3)</td>
</tr>
<tr>
<td>HIM SI3200</td>
<td>Epidemiology &amp; Biostatistics (3)</td>
</tr>
<tr>
<td>HIM 3300</td>
<td>Intro to Quality Improvement in Health Care (3)</td>
</tr>
<tr>
<td>GERT 2220</td>
<td>Intro to Social Gerontology (3)</td>
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<tr>
<td>GERT 3000</td>
<td>Death &amp; Dying (3)</td>
</tr>
<tr>
<td>GERT 3120</td>
<td>Aging: Adaptation &amp; Behavior (3)</td>
</tr>
</tbody>
</table>

**HEALTH INFORMATION TECHNOLOGY
ASSOCIATE OF APPLIED SCIENCE DEGREE (AAS)**

- **Program Prerequisite:** HTHS 1101 Medical Terminology and HTHS 1110 Biomedical Core with a grade of "C" or better.
- **Minor:** Not required.
- **Grade Requirements:** A grade of "C" or better in required courses (a grade of "C-" is not acceptable).
- **Credit Hour Requirements:** A minimum of 63 credit hours is required for graduation.

**Advisement**

Health Information Technology students should meet with a faculty advisor for course and program advisement. Call 801-626-7242 for more information or to schedule an appointment.

**Admission Requirements**

Each student must complete a program application prior to or while enrolled in HIM 2000, Introduction to the Health Information Systems & Settings. A $20 application fee must be paid at the time the application is submitted. Faculty will sum each student’s points earned in the following areas: 1) GPA in required courses taken outside the department x2; 2) index points assigned by faculty on the basis of the student’s performance in HIM 2000, i.e. professionalism, communications, work experience, and diversity. The students applying for admission that year are then ranked according to their total points, and approximately the top 20 are admitted to the program for that year.

**General Education**

Refer to pages 38-43 for Associate of Applied Science requirements.

**Course Requirements for AAS Degree**

**Program Prerequisites (6 credit hours)**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>HTHS 1101</td>
<td>Medical Terminology (2)</td>
</tr>
<tr>
<td>HTHS LS1110</td>
<td>Biomedical Core (4)</td>
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**Health Information Courses Required (28 credit hours)**

<table>
<thead>
<tr>
<th>Course Code</th>
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<tbody>
<tr>
<td>HIM 2000</td>
<td>Intro to Health Information (4)</td>
</tr>
<tr>
<td>HIM 2200</td>
<td>Healthcare Statistics and Privacy (3)</td>
</tr>
<tr>
<td>HIM 2300</td>
<td>Diagnosis Coding (3)</td>
</tr>
<tr>
<td>HIM 2320</td>
<td>Ambulatory &amp; Physician Office Coding (3)</td>
</tr>
<tr>
<td>HIM 2330</td>
<td>Classification Systems Topics &amp; Reimbursement Issues (2)</td>
</tr>
<tr>
<td>HIM 2500</td>
<td>Healthcare Database Management &amp; Security (3)</td>
</tr>
<tr>
<td>HIM 2861</td>
<td>(2nd Year) Professional Practice Experiences (2)</td>
</tr>
<tr>
<td>HIM 2862</td>
<td>(2nd Year) Professional Practice Experiences (2)</td>
</tr>
<tr>
<td>HIM 3000</td>
<td>Computer Applications in Health Care (3)</td>
</tr>
<tr>
<td>HIM 3300</td>
<td>Intro to Quality Improvement in Health Care (3)</td>
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</table>

**Support Courses Required (19-21 credit hours)**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
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<tbody>
<tr>
<td>HTHS 1111</td>
<td>Biomedical Core (4)</td>
</tr>
<tr>
<td>HTHS 2230</td>
<td>Intro to Pathophysiology (3)</td>
</tr>
<tr>
<td>HTHS 2240</td>
<td>Intro to Pharmacology (3)</td>
</tr>
<tr>
<td>HAS 3000</td>
<td>The Health Care System (3)</td>
</tr>
<tr>
<td>TBE TE1700</td>
<td>Microcomputer Applications (3)</td>
</tr>
<tr>
<td>MATH QL1030</td>
<td>Contemporary Mathematics (3)</td>
</tr>
<tr>
<td>or HIM SI3200</td>
<td>Epidemiology &amp; Biostatistics (3)</td>
</tr>
<tr>
<td>or HTHS 1108</td>
<td>Biocalculations for Health Professions (5)</td>
</tr>
</tbody>
</table>

**HEALTHCARE CODING & CLASSIFICATION INSTITUTIONAL CERTIFICATE**

- **Grade Requirements:** To receive a Healthcare Coding & Classification Certificate the student must complete all courses in the certificate program with a grade of "C" or higher (a grade of "C-" is not acceptable).
- **Credit Hour Requirements:** 24 credit hours as specified below.

**Program Description**

This program provides training to candidates interested in the application of disease and operation codes to episodes of care in the U.S. healthcare system. There currently is a nationwide shortage of qualified healthcare coders. Qualified coders are needed at all levels of the healthcare system to provide coded clinical data for reimbursement and research purposes.

The program develops the ability of students to use the International Classification of Diseases, version 9 (ICD-9-CM) of the U.S. Department of Health and Human Services and the Common Procedural Terminology (CPT) of the American Medical Association. The program develops expertise for both outpatient/office practice and acute-care inpatient levels of proficiency. Use and application of both coding schemes in the systems of reimbursement for health-care services is also developed.

Completion of all courses earns the student a Healthcare Coding & Classification Certificate and prepares them to sit for the American Health Information Management Association's Certified Coding Associate (CCA) credentialing examination.

**Course Requirements for Institutional Certificate**

**Program Prerequisites (6 credit hours)**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
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</thead>
<tbody>
<tr>
<td>HTHS 1101</td>
<td>Medical Terminology (2)</td>
</tr>
<tr>
<td>HTHS LS1110</td>
<td>Biomedical Core (4)</td>
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**Courses Required (18 credit hours)**

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<th>Course Code</th>
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<tbody>
<tr>
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<td>Biomedical Core (4)</td>
</tr>
<tr>
<td>HTHS 2230</td>
<td>Intro to Pathophysiology (3)</td>
</tr>
</tbody>
</table>
### HEALTH ADMINISTRATIVE SERVICES COURSES - HAS

**HAS 3000. The Health Care System (3) 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 SI3200.

**HAS 4320. Health Care Economics and Policy (3) F, S**
Discussion and analysis of the economic models controlling health-care 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) Su**
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 INFORMATION MANAGEMENT COURSES - HIM

HIM 2000. Introduction to Health Information Systems and Settings (4) F
Introduction to the health information profession, job duties, functions, and the professional organization are discussed. Health care settings, numbering and filing systems and equipment, master patient indexes, health information documentation requirements, discharge analysis and incomplete chart control are presented. Introduction to the process, terminology, and stylistic conventions of medical report transcription. Prerequisites: HTHS 1101 and HTHS LS1110.

HIM 2200. Healthcare Statistics and Privacy (3) S
Application of the health information statistical systems that are commonly maintained in health information services, institutional review board and human subjects in research. HIPAA privacy law, development of policies and procedures and release of information are discussed. Prerequisite: TBE TE1700 or TBE TC1703 or TBE TC1503.

HIM 2300. Diagnosis Coding (3) F
ICD-9-CM and CPT classification, conventions and coding procedures are introduced and practiced. Prerequisite: HTHS LS1110 and HTHS 1111 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 outpatients, physician and professional billing is presented, discussed and practiced. Prerequisite: HIM 2300.

HIM 2330. Classification Systems Topics and Reimbursement Issues (2)
Discussion of issues parallel to or founded in the use of classification systems: Federal reimbursement systems, coding compliance, quality auditing, peer review organizations, and database reporting.

HIM 2500. Healthcare Database Management & Security (3) F
An introduction to database monitoring, maintenance and use. Data definition, vocabularies, terminologies and dictionaries are discussed. Clinical abstracting and report writing are practiced. A working knowledge of database management is developed. The HIPAA security law, development of polices and procedures to enforce the security rule are covered. Prerequisite: TBE TE1700 or TBE TB1702 or TBE TB1502.

HIM 2861. (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 2000.

HIM 2862. (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 2861.

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, infrastructure 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 SI3200. Epidemiology and Biostatistics (3) F, S
The goals and objectives of epidemiology, its policy and procedure, and its foundation and support in health care information are the focus of this course. Investigation of an epidemic, measures of mortality, incidence and prevalence, measures of risk, biological variability, probability, screening, sampling, statistical significance, correlation, multiple regression, retrospective and prospective studies, and survival analysis are discussed. Advanced techniques for the statistical analysis of institutional case-mix and quality improvement data are presented. Prerequisite: Must meet WSU Quantitative Literacy requirement.

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) S
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) F
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 vendor's system's ability to meet health care information applications, objectives and procedural requirements. "Entrepreneurial" skill is developed to lead organizations in finding solutions to their information management problems. Prerequisite: HIM 3050 and HAS 3260.

**HIM 4990. Baccalaureate Thesis and Presentation (3)**

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.

**Program History**

Founded in 1953, nursing at Weber State University offers students career progression from Practical Nursing (PN) to Associate of Science (AS) or Associate of Science Degree Nursing (AAS) to Baccalaureate Nursing (BSN) to Master of Science in Nursing 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 four levels of preparation for nursing practice: PN, Associate's Degree Nursing (ADN), RN to BSN (BS), and Master of Science in Nursing (MSN). 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.

Four entry options are available for students. Two of these lead to licensure by examination at the PN and AS/BS levels. The third option leads to a baccalaureate degree in nursing. The fourth option leads to a master of science in nursing with either a concentration in nursing administration or nursing education.

**Entry Options**

**Practical Nurse (PN)[IC]:** 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).

**Registered Nurse (RN)[AAS/AS]:** Two years are required for students entering this option. Students may apply for the three semester option (See Advisor). 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 or associate of applied 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). The difference between the AS and AAS Degrees is the number of general education course requirements that have to be completed.
Practical Nurse (PN)(IC) to Registered Nurse (PN to RN) [AAS/AS]: This entry option is open only to PNs. Entering students enroll for the second year of the AAS/AS nursing program. Graduates take the NCLEX-RN at completion of this curricular 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 State 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.

Registered Nurse to BSN (RN-to-BSN)[BS]: 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 who upon entry to an RN program, declare their desire to complete the baccalaureate degree without interruption. Students who declare uninterrupted transition into the BSN program must complete the AS degree along with their RN requirements. Such students must also:
- Complete the AS Degree;
- Complete BSN admission criteria;
- Obtain a passing score on the RN-NCLEX predictor exam;
- Receive recommendation from RN program administration/faculty.

2+2 students who meet the above criteria will receive priority consideration for entry into the BSN program.

To progress beyond semester one, of the RN to BSN program, seamless students must successfully pass the RN-NCLEX examination. Students need to obtain the earliest testing date possible and keep the BSN program secretary informed of licensure status.

Second: RN to BSN Licensed Option is available for those who are working, and have completed an AS Degree upon RN graduation. Nurses in this category are welcomed/encouraged to return and obtain their baccalaureate degree. Utah RN Licensure without restrictions is required as well as completion of BSN admission criteria.

A working RN who graduated with an AAS Degree will need to complete the requirements for the AS Degree prior to requesting admission to the RN to BSN program.

Third: This option is available to WSU RN graduates who did not upon entry to their program, declare their interest in obtaining the baccalaureate degree directly upon completion of the RN program. These students may request admission into the RN to BSN program and are most welcome. The criteria or admission is the same as the 2+2 BSN Option; students must:
- Complete the AS Degree;
- Complete BSN admission criteria;
- Obtain a passing score on the RN-NCLEX predictor exam;
- Receive recommendation from RN program administration/faculty.

Admission may be limited by availability of program space.

Master of Science in Nursing (MSN)

The MSN program is designed to prepare 1) nurse administrators, 2) college-level nursing faculty, and 3) nurse educators employed within healthcare institutions. The concentrations of nursing educator and nurse administrator will prepare students for advanced careers in nursing. Both concentrations are specifically intended for individuals with nursing experience who want to advance their careers as nurse administrators or college faculty.

Please refer to page 251 for MSN requirements.

Accreditation

The nursing program (PN, AAS/AS and BSN) is accredited by the National League for Nursing Accrediting Commission (NLNAC). Candidacy status has been requested from the National League for Nursing Accrediting Commission (NLNAC) for the MSN Program.

National League of Nursing Accrediting Commission
61 Broadway
New York, NY 10006
Phone: (800) 669-1656, Fax: (212) 812-0309
www.nlnac.org

Admission Process For Entry Options

Practical Nursing (PN)

DCHP Admission Office (801) 626-6136

Applicants must first apply for admission to Weber State University. Applicants must also apply for admission to the Practical Nursing program. Admission selections are made once per year. Applications may be obtained from the Nursing Admission Counselor, Room MH108B, Dr. Ezekiel R. Dume College of Health Professions. Applications must be completed and post-marked by 1 February each year. A $20 application fee must be paid at the time the application is submitted. Admission applications are reviewed by the Nursing Admissions and Advancement Committee. Applicants are notified of committee decision by mail.

Program selectees begin prerequisites summer semester and are admitted for 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.
- Complete Federal background check and drug screen (upon acceptance to program)
- Cumulative GPA of 3.0
- ACT composite score of 18

Associate of Applied Science / Associate of Science Degree Nursing (RN)

DCHP Admission Office (801) 626-6136

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. Dume 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:

Please refer to page 251 for MSN requirements.
• Completion of Certified Nursing Assistant Course Form, Certified Nursing Assistant Certificate or Certified Nursing Assistant Recertification Letter
• Graduation from high school or equivalent program
• Complete Federal background check and drug screen (upon acceptance to program)
• Cumulative grade point average of 3.0
• ACT composite score of 22
• Admission to Weber State University
• Completed application to Associate of Science/Associate of Applied Science Degree option and payment of the $20 application fee

Practical Nurse (PN) to AAS/AS (PN to RN or “Advanced Placement”)

DCHP Admission Office (801) 626-6136

Applicants must first apply for admission to Weber State University. Applicants must also apply for admission to PN to RN program. A 2 + 2 BSN Option is available to PN-to-RN and AAS/AS nursing students that desire uninterrupted progression through the AAS/AS Degree to the RN-to-BSN Program level. PN-to-RN and AAS/AS Nursing Program applicants must declare the 2+2 BSN program option at the time of application. Time limits and deadlines vary according to campus location. For applications and deadline information, please contact the Nursing Admission Counselor, Room MH108B, Dr. Ezekiel R. Dumke College of Health Professions. A $20 application fee must be paid at the time the application is submitted. Admission applications are reviewed and evaluated by the Nursing Program Admissions and Advancement Committee. Applicants are notified of committee decision by mail. Admission requirements include the following:
• Graduate of an NLNAC Accredited Practical Nursing Program or equivalent program (a challenge examination may be required for those graduating from an equivalent program)
• Completion of WSU general education requirements for Practical Nursing with "C" grade or better
• Complete Federal background check and drug screen (upon acceptance to program)
• Cumulative GPA of 3.0
• Admission to Weber State University
• Completed application to PN to AAS/AS option and payment of the $20 application fee
• Successful completion of WSU Nursing PN Comprehensive Predictor
• Utah PN Licensure without restrictions

Baccalaureate Nursing

DCHP Admission Office (801) 626-6136

Applicants must first apply for admission to, or be a current matriculated student of, Weber State University. Applicants must also apply for admission to Baccalaureate Nursing option. A 2 + 2 BSN Option is available to PN-to-RN and AS nursing students that desire uninterrupted progression through the AS Degree to the RN-to-BSN Program level. PN-to-RN and AS Nursing Program applicants must declare the 2+2 BSN program option at the time of application. Admissions are two times per year for Ogden campus and once per program cycle for Outreach sites. Applications are available for each cycle and may be obtained from the Nursing Admission Counselor in Room MH108B, Dr. Ezekiel R. Dumke College of Health Professions. Applications must be completed and on file by 1 April for fall admission and 1 November for spring admission for Ogden campus. A $20 application fee must be paid at the time the application is submitted. Admission applications are reviewed and evaluated by the Nursing Program Admissions and Advancement Committee. Applicants are notified of committee decision by mail. Admission requirements include the following:

Non-seamless:
• Associate of Science Degree in Nursing Graduates from an NLNAC accredited diploma with the equivalent of an Associate of Science Degree or higher
• Graduates of non-NLNAC programs with successful completion of NLN ACE- II examination for registered nurses.
• Completion of prerequisite courses
• Completion of WSU general education requirements for the Associate of Science Degree
• Current Utah RN license without restrictions
• Complete Federal background check and drug screen (upon acceptance to program)
• Cumulative GPA of 3.0 or better
• Admission to Weber State University
• Completed application to baccalaureate nursing and payment of the $20 application fee

Seamless:
• Completion with approval of seamless application
• Completion of RN Comprehensive Predictor Exam with passing score

Master of Science in Nursing (MSN)

DCHP Admission Office (801) 626-6136

Minimum Admission Requirements:
• Admission is competitive; therefore, the listed criteria for admission should be considered as minimum standards. Applicants should apply for admission to or be a current matriculated student of Weber State University.

Applications are available annually and may be obtained from the Nursing Admission Counselor in Room MH108B, Dr. Ezekiel R. Dumke College of Health Professions. Applications become available January 1 of each year and will be due by March 1. Admissions is for fall each year. Applicants will need to make a choice between the Administrative or Education Concentration on their application.

A $70 application fee must be paid at the time the application is submitted. Admission applications are reviewed and evaluated by the Nursing Program Admissions and Advancement Committee. Please contact DCHP Admissions Office (801) 626-6136.

Please refer to page 251 for MSN requirements.

Practical Nursing - Ogden Campus

INSTITUTIONAL CERTIFICATE

PN/AD N Level Coordinator: Pam Rice, MSN, RN
Program Secretary: Marguerite Simmons (801) 626-7416

• Grade Requirements: A minimum grade of “B-” is required in all nursing courses in addition to a grade of “C” in each support course.
• Credit Hour Requirements: A minimum of 40 credit hours is required.

Advisement
Contact the DCHP Admission Office at (801) 626-6136 for admission advisement.

Admission Requirements
See page 274.
### 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**
(Courses should be taken prior to admissions or concurrently in the nursing program.)

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

**First Year Summer**

**OPTION I**
- HTHS LS1110 Health Sciences (Biomed) (4)
- HTHS LS1111 Health Sciences Lab (Biomed) (4)
- CHEM PS/SI1050 Intro to General, Organic & Biochemistry (5)
- or CHEM PS/SI1110 Elementary Chemistry (5)
- WSU Math QL Requirement

**or 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)
- WSU Math QL Requirement

**First Year Fall**
- MICR LS1113 Intro Microbiology (3)
- NUTR LS1020 Foundations in Nutrition (3)

**First Year Spring**
- ENGL EN1010 Introductory College Writing (3)
- PSY SS1010 Intro to Psychology (3)

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### Nursing - Ogden Campus

**Associate of Science Degree (AS)**

**Associate of Applied Science Degree (AAS)**

PN/AD N Level Coordinator: Pam Rice, MSN, RN
Program Secretary: Marguerite Simmons (801) 626-7416

- **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 AAS. A minimum of 84 credit hours is required for the AS. Twenty residency hours are also required.

Advisement
Contact the DCHP Admission Office at (801) 626-6136 for admission advisement.

Admission Requirements
See page 274.

### Course Requirements for AS 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 (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)

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

**Second Year Spring**
- NRSG 2080 Patient Management (2)
- NRSG 2081 Patient Management Clinical (3)

**Prerequisite/Support Courses Required**
(must be taken in sequence listed or earlier)

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

**First Year Summer**

**OPTION I**
- HTHS LS1110 Health Sciences (Biomed) (4)
- HTHS LS1111 Health Sciences Lab (Biomed) (4)
- CHEM PS/SI1050 Intro to General, Organic & Biochemistry (5)
- or CHEM PS/SI1110 Elementary Chemistry (5)
- WSU Math QL Requirement

**or 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)
- WSU Math QL Requirement

**First Year Fall**
- MICR LS1113 Intro Microbiology (3)
- NUTR LS1020 Foundations in Nutrition (3)

**First Year Spring**
- ENGL EN1010 Introductory College Writing (3)
- PSY SS1010 Intro to Psychology (3)

**First Year Summer**
- HTHS LS1110 Health Sciences (Biomed) (4)
- HTHS LS1111 Health Sciences Lab (Biomed) (4)
- CHEM PS/SI1050 Intro to General, Organic & Biochemistry (5)
- or CHEM PS/SI1110 Elementary Chemistry (5)
- WSU Math QL Requirement

**Second Year Summer**
- HTHS 2230 Introductory Pathophysiology (3)
- American Institution Gen Ed Course (3)
- Humanities Gen Ed Course (3)
- Gen Ed SS Social Science (3)

**Second Year Fall**
- ENGL EN2010 Intermediate College Writing (3)

**Second Year Spring**
- Gen Ed HU or CA Humanities or Creative Arts (3)
- Gen Ed CIL Computer Information Literacy (4)
- Gen Ed CA Creative Arts (3)

**Course Requirements for AAS 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)
**Prerequisite/Support Courses Required**

 must be taken in sequence listed or earlier

Support courses must be completed and passed with a "C" or better prior to progression to the next semester.

**First Year Summer**

**OPTION I**
- HTHS LS1110 Health Sciences (Biomed) (4)
- HTHS LS1111 Health Sciences Lab (Biomed) (4)
- CHEM PS/SI1050 Intro to General, Organic & Biochemistry (5)
  or CHEM PS/SI1110 Elementary Chemistry (5)
- WSU Math QL Requirement

or **OPTION II**
- Zoology 2100 Human Anatomy (4)
- Zoology 2200 Human Physiology (4)
- CHEM PS/SI1050 Intro to General, Organic & Biochemistry (5)
  or CHEM PS/SI1110 Elementary Chemistry (5)
- WSU Math QL Requirement

**First Year Fall**

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

**First Year Spring**

- ENGL EN1010 Introductory College Writing (3)
- PSY SS1010 Intro to Psychology (3)

**Second Year Summer**

- HTHS 2230 Pathophysiology (3)

**Second Year Fall**

- ENGL EN2010 Intermediate College Writing (3)
- HU or CA Humanities or Creative Arts (3)

**Advisement**

Contact the DCHP Admission Office at (801) 626-6136 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) 626-6136. 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 AS 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 2080 Treatment Modalities III (2)
- NRSG 2081 Nursing Care of Adults & Children II Clinical (3)

Prerequisite/Support Courses Required

.must be taken in sequence listed or earlier

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

**First Year Summer**

**OPTION I**
- HTHS LS1110 Health Sciences (Biomed) (4)
- HTHS LS1111 Health Sciences Lab (Biomed) (4)
- CHEM PS/SI1050 Intro to General, Organic & Biochemistry (5)
  or CHEM PS/SI1110 Elementary Chemistry (5)
- WSU Math QL Requirement

or **OPTION II**
- Zoology 2100 Human Anatomy (4)
- Zoology 2200 Human Physiology (4)
- CHEM PS/SI1050 Intro to General, Organic & Biochemistry (5)
  or CHEM PS/SI1110 Elementary Chemistry (5)
- WSU Math QL Requirement

**First Year Fall**

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

**First Year Spring**

- ENGL EN1010 Introductory College Writing (3)
- PSY SS1010 Intro to Psychology (3)

**Second Year Summer**

- HTHS 2230 Pathophysiology (3)

**Second Year Fall**

- ENGL EN2010 Intermediate College Writing (3)
<table>
<thead>
<tr>
<th>Course Requirements for AAS Degree</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Nursing Courses Required (must be taken in sequence)</strong></td>
<td></td>
</tr>
<tr>
<td><strong>First Year Fall</strong></td>
<td></td>
</tr>
<tr>
<td>NRSG 1030</td>
<td>Foundations of Nursing Practice (3)</td>
</tr>
<tr>
<td>NRSG 1031</td>
<td>Foundations of Nursing Practice Clinical (3)</td>
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<tr>
<td>NRSG 1050</td>
<td>Treatment Modalities I (3)</td>
</tr>
<tr>
<td><strong>First Year Spring</strong></td>
<td></td>
</tr>
<tr>
<td>NRSG 1040</td>
<td>Women’s Health &amp; the Childbearing Family (1)</td>
</tr>
<tr>
<td>NRSG 1041</td>
<td>Women’s Health &amp; the Childbearing Family Clinical (1)</td>
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<td>NRSG 1045</td>
<td>Nursing Care of Adults &amp; Children I (3)</td>
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<td>NRSG 1046</td>
<td>Nursing Care of Adults &amp; Children I Clinical (2)</td>
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<tr>
<td><strong>Second Year Fall</strong></td>
<td></td>
</tr>
<tr>
<td>NRSG 2050</td>
<td>Treatment Modalities II (2)</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>
<tr>
<td><strong>Second Year Spring</strong></td>
<td></td>
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<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 2080</td>
<td>Patient Care Management (2)</td>
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<td>NRSG 2081</td>
<td>Patient Care Management Clinical (3)</td>
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</tbody>
</table>

**Prerequisite/Support Courses Required**

*(must be taken in sequence listed or earlier)*

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

**First Year Summer (reflects USU course ID#’s in brackets)**

<table>
<thead>
<tr>
<th>Course</th>
<th>Description</th>
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<tbody>
<tr>
<td>ZOOL 2100</td>
<td>[BIOL 2320] - Human Anatomy (4)</td>
</tr>
<tr>
<td>ZOOL 2200</td>
<td>[BIOL 2420] - Human Physiology (4)</td>
</tr>
<tr>
<td>CHEM 1110</td>
<td>[CHEM 1110 [4]] - Elementary Chemistry</td>
</tr>
<tr>
<td>WSU Math QL Requirement</td>
<td>[MATH 1030, 1040 or 1050]</td>
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</tbody>
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**First Year Fall (reflects USU course ID#’s in brackets)**

<table>
<thead>
<tr>
<th>Course</th>
<th>Description</th>
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</thead>
<tbody>
<tr>
<td>MICRO 1113</td>
<td>[BIOL 2060] - Microbiology (4) or [MICR 1100] (3)</td>
</tr>
<tr>
<td>NUTR 1020</td>
<td>[NFS 1020] - Nutrition (3)</td>
</tr>
</tbody>
</table>

**First Year Spring (reflects USU course ID#’s in brackets)**

<table>
<thead>
<tr>
<th>Course</th>
<th>Description</th>
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</thead>
<tbody>
<tr>
<td>PSYCH 1010</td>
<td>[PSY 1010] - General Psychology (3)</td>
</tr>
<tr>
<td>HTHS 2230</td>
<td>[BIOL 2520] - Intro to Pathophysiology (3)</td>
</tr>
</tbody>
</table>

**Second Year Summer**

<table>
<thead>
<tr>
<th>Course</th>
<th>Description</th>
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<tr>
<td>ENG EN1010</td>
<td>English (3)</td>
</tr>
<tr>
<td>Humanities elective</td>
<td>(3)</td>
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</table>

**Second Year Fall**

<table>
<thead>
<tr>
<th>Course</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENG EN2010</td>
<td>English (3)</td>
</tr>
</tbody>
</table>
NRSG 4060  Oncology Nursing (3)
& NRSG 4061  Oncology Nursing Laboratory (1)

*Credit for NRSG 3030, 3031, 3040, 3050, 3051, 3060, 3061, 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 45) 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 researched 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 4840 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 complete to receive Nursing departmental honors.

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 45.)

### NURSING COURSES - NRSG

NRSG 1030. Foundations of Nursing Practice (3)

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)

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)

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, 1045, 1046. Must be taken concurrently with NRSG 1041.

NRSG 1041. Women's Health and the Childbearing Family Clinical (1)

A companion course taught in concert with NRSG 1040. Clinical experience nursing 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, 1045, 1046. Must be taken concurrently with NRSG 1040.

NRSG 1045. Nursing Care of Adults and Children I (3)

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)

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, 1045. Must be taken concurrently with NRSG 1045.

NRSG 1050. Treatment Modalities (3)

Basic treatments and pharmaceutical 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 nervous system, cardiovascular system, central nervous system, and gastrointestinal system. Other drugs addressed include anti-diabetic 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 2060. Psychiatric/Mental Health Nursing Across the Lifespan (2)

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.
NRSG 2061. Psychiatric/Mental Health Nursing Across the Lifespan Clinical (1)
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)
Theory with emphasis on more complex physiological 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 2071.

NRSG 2071. Nursing Care of Adults and Children II (4)
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)
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: NRSG 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)
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)
(Maximum of 3 semester hours per year). Prerequisite: Instructor approval.

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 (3)
A writing intensive course that examines the 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. (Hybrid) Co-requisites: NRSG 3020, 3030, 3031, 3035.

NRSG SI3020. Nursing Research (3)
A writing intensive course that examines nursing research. Students are encouraged to explore a research base for their personal nursing practice and to understand how evidence based concepts should influence/improve nursing care. Focus is on fundamental concepts of nursing research in practice and theory. Research is approached from a practice based model. (Hybrid) Co-requisites: NRSG 3010, 3030, 3031, 3035.

NRSG SI3030. Nursing Assessment Across the Life Span (3)
A 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. (Hybrid) Co-requisite: NRSG SI3031 (must be taken concurrently with NRSG SI3031).

NRSG SI3031. Nursing Assessment Across the Life Span Laboratory (1)
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) lab hours. Co-requisite NRSG SI3030 (must be taken concurrently with NRSG SI3030).

NRSG 3035. Gerontological Nursing (2)
With the aging of America and the ever-growing population of elderly persons in this society, it is essential that nursing professionals 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. (Hybrid) Co-requisites: NRSG 3010, 3020, 3030, 3031.

NRSG 3040. Nursing Concepts in Acute Illness (3)
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. (Hybrid) Prerequisites: NRSG 3010, 3020, 3030, 3031, 3035.

NRSG 3045. Decision Making in Nursing Practice (2)
Course centered around student ability to identify, analyze and problem solve variables affecting decisions encountered in nursing practice. Variables include medical problems, nursing care, religious and cultural values and the dynamics of change; decisions can
NRSG 3051. Nursing: High Risk Family Laboratory (1)
A companion course taught in concert with NRSG 3050. Students achieve mastery of course outcomes related to complications of labor, delivery, birth, newborn, pediatric and/or teen alterations/problems. Learning occurs in a variety of settings such as simulation laboratory, computer simulation, field experience. Selected experiences which enhance learning objectives may be included. Credit hours (1): 2 lab hrs per week. 30 hours per semester. Prerequisites: 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)
Advanced theories and concepts of nursing practice are explored in relation to adults experiencing life threatening alterations in health. (Hybrid) Prerequisites: NRSG 3010, 3020, 3030, 3031, 3035. Co-requisites: NRSG 3040, 3050. (NRSG 3050 and 3061 must be taken concurrently.)

NRSG 3061. Nursing: High Risk Adult Laboratory (1)
A companion course taught in concert with NRSG 3060. Students achieve mastery of course outcomes related to the care of acutely ill/injured adult patients. Learning occurs in a variety of settings such as simulation laboratory, computer simulation, field experience. Selected experiences which enhance learning objectives may be included. Credit hours (1): 2 hours lab per week. 30 hours per semester (Hybrid). Prerequisites: NRSG 3010, 3020, 3030, 3031, 3035. Co-requisites: NRSG 3040, 3060. (NRSG 3060 and 3061 must be taken concurrently.)

NRSG 3070. Threats and Crises: Nursing Response (3)
Terrorism, war and natural disasters present new challenges to nurses and requires they be trained to care for resultant victims. Learning emphasizes crisis management, specific patient/health issues and unique nursing interventions. (Hybrid) Prerequisites: NRSG 3010, 3020, 3030, 3031, 3035 Co-requisite: NRSG 3040, 3071. (NRSG 3070 and NRSG 3071 must be taken concurrently.)

NRSG 3071. Threats and Crises: Nursing Response Laboratory (1)
Companion course to NRSG 3070. Learning will focus on Community Emergency Response Training program/certification. Emphasis also upon community education and the nurses role in interdisciplinary responses. Pre-requisites: NRSG 3010, 3020, 3030, 3031, 3035. Co-requisites: NRSG 3040, 3070. (NRSG 3070 and NRSG 3071 must be taken concurrently.)

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 NRSG 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)
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)
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. (Hybrid) Prerequisites: NRSG 3010, 3020, 3030, 3031, 3035. Co-requisite: NRSG 3040, DV4021. (NRSG DV4020 and DV4021 must be taken concurrently.)

NRSG DV4021. Nursing: Community Health Laboratory (1)
A companion course taught in concert with NRSG DV4020. Students assess health needs of aggregates, either simulated or actual, and determine appropriate community nurse interventions. Threats to community health identified and prevention analyzed. Cultural barriers to intervention and prevention explored. (Hybrid) Prerequisites: NRSG 3010, 3020, 3030, 3031, 3035. Co-requisites: NRSG 3040, DV4020. (NRSG DV4020 and DV4021 must be taken concurrently.)

NRSG DV4022. Nursing: Community Health Laboratory (1)
A companion course taught in concert with NRSG DV4022. Students assess health needs of aggregates, either simulated or actual, and determine appropriate community nurse interventions. Threats to community health identified and prevention analyzed. Cultural barriers to intervention and prevention explored. (Hybrid) Prerequisites: NRSG 3010, 3020, 3030, 3031, 3035. Co-requisites: NRSG 3040, DV4022. (NRSG DV4030 and DV4022 must be taken concurrently.)

NRSG 4030. Power, Policy, and Politics in Nursing (2)
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. (Hybrid) Prerequisites: NRSG 3010, 3020, 3030, 3031, 3035. Co-requisites: NRSG 3040.

NRSG 4040. Nursing: Leadership and Management (3)
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. (Hybrid) Prerequisites: 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 Laboratory (1)
A companion course taught in concert with NRSG 4040. Application of leadership/management principles occurs in simulated or actual settings. Critical thinking processes guide judgments and decisions in management scenarios. (Hybrid) Prerequisites: NRSG 3010, 3020, 3030, 3031, 3035. Co-requisites: NRSG 4040, 4041. (NRSG 4040 & 4041 must be taken concurrently.)
NRSG 4060. Oncology Nursing (3)
Investigate and analyzes broad epidemiological and biological origins of cancer. Then individual common cancers are studied including etiology, therapies and specific nursing interventions. (Hybrid) Prerequisites: NRSG 3010, 3020, 3030, 3031, 3035. Co-requisite: NRSG 3040, 4061 (NRSG 4060 and 4061 must be taken concurrently.)

NRSG 4061. Oncology Nursing Laboratory (1)
Companion course to theory course, NRSG 4060. Provides onsite or lab learning experience related to specific cancer therapies. A major focus will center on end-of-life issues and pain control. (Hybrid) Prerequisites: NRSG 3010, 3020, 3030, 3031, 3035. Co-requisite: NRSG 3040, 4060 (NRSG 4060 and 4061 must be taken concurrently)

NRSG SI4800. Guided Research
(1-2 credits - Variable hours)
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, NRSG 3030, NRSG 3031, NRSG 3035 and instructor consent.

NRSG 4830. Directed Theoretical Readings
(Variable hours)
Involves a contract with 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) Prerequisites: NRSG 3010, NRSG 3020, NRSG 3030, NRSG 3031, NRSG 3035 and instructor consent.

NRSG 4840. Departmental Honors in Nursing Seminar (3)
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 (2)
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 (2), 2 lecture hours per week. Prerequisites: NRSG 3010, 3020, 3030, 3031, 3035, 3040, 4030, 3050, 3051, 3060, 3061. Co-requisites: NRSG 4020, 4021, 4040, 4041.
Advisement

Students should meet with the admissions counselor at least annually for course and program review. Call 801-626-6136 for more information or to schedule an appointment.

Admission Requirements

- Be accepted to Weber State University and declare program of study as Radiography applicant.
- 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.
- Pay the $20 program application fee.
- Present a satisfactory high school and/or college transcript(s).
- Complete the general education courses listed below.

General Education

Refer to pages 37-43 for AAS 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
- Social Sciences (Introductory Psychology) Course (3)
- Humanities (Communication) Course (3)
- Life Science (3)
- or Health Sciences (Biomed) HTHS LS1110 (4) and HTHS 1111 (4)

Course Requirements for AAS Degree

Courses Required (60 credit hours)

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<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>RADT 1022</td>
<td>Intro to Rad Tech</td>
<td>(2)</td>
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<tr>
<td>RADT 1303</td>
<td>Principles of Radiographic Exposure I (3)</td>
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<tr>
<td>RADT 1502</td>
<td>Radiographic Anatomy &amp; Positioning I (2)</td>
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<tr>
<td>RADT 1512</td>
<td>Radiographic Anatomy &amp; Positioning II (3)</td>
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<td>Radiographic Anatomy &amp; Positioning III (2)</td>
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<td>Laboratory Experience (2)</td>
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<td>RADT 1621</td>
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<td>RADT 1661</td>
<td>Laboratory Experience (1)</td>
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<td>RADT 2043</td>
<td>Patient Care &amp; Assessment I (2)</td>
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<td>RADT 2272</td>
<td>Basic Sectional Anatomy (2)</td>
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<td>RADT 2403</td>
<td>Principles of Radiographic Exposure II (2)</td>
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<td>RADT 2861-2865</td>
<td>Clinical Education (14)</td>
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<td>RADT 2866</td>
<td>Final Competency Evaluation (2)</td>
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<td>RADT 2913</td>
<td>Comprehensive Review (2)</td>
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<td>RADT DV3003</td>
<td>Psycho-Social Medicine (3)</td>
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<td>RADT 3043</td>
<td>Medical Ethics &amp; Law (3)</td>
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<td>RADT 3403</td>
<td>Radiobiology &amp; Health Physics (3)</td>
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<tr>
<td>RADT SI3443</td>
<td>Quality Assurance (3)</td>
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<tr>
<td>RADT 3463</td>
<td>Computerized Imaging (3)</td>
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Elective Courses (6-13 credit hours)

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<td>Independent Research (1-3)</td>
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<tr>
<td>RADT 2833</td>
<td>Directed Readings (1-3)</td>
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</tr>
<tr>
<td>RADT 2921</td>
<td>Workshop, Conferences and Telecourses (1-3)</td>
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<td>RADT 2942</td>
<td>Career Planning &amp; New Technology (2)</td>
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<tr>
<td>RADT 2992</td>
<td>Seminar (1-2)</td>
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Advanced Radiologic Sciences

Bachelor’s Degree (BS)

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 (BS) 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:

1. Advanced Radiography
2. Magnetic Resonance Imaging and/or Computed Tomography (MRI and CT)
3. Cardiovascular-Interventional Technology (CIT)
4. Mammography (M)
5. Radiology Practitioner Assistant/Radiologist Assistant (RPA/RA)*

*The Radiology Practitioner Assistant/Radiologist Assistant program requires the consent of a supervising physician, 5 years experience as an ARRT registered technologist (RT) and that the General Education requirements at Weber State University be met. (Must also be ACLS certified.)

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/Radiology Assistant (RPA/RA) 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 (if 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 37-43 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 SI4943, Baccalaureate Thesis (3) and approved by a faculty advisor.
## Course Requirements for BS Degree

### Radiography Courses Required (5 credit hours)
- RADT 4933  
  Research Methods (2)
- RADT 4943  
  Baccalaureate Thesis (3)

Complete one of the following emphases:

### ADVANCED RADILOGIC 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 SI3443  
    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 (26-30 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 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 4533  
  Breast Anatomy, Physiology and Pathology (3)
- RADT 4563  
  Mammographic Positioning Imaging Techniques (3)
- 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/MRI (2)
- RADT 4992  
  Seminar (2)

### RADIOLOGY PRACTITIONER ASSISTANT/ RADIOLOGIST ASSISTANT EMPHASIS

Students interested in the RPA/RA Program should 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, meet the General Education requirements at Weber State University, and have the consent of a radiologist.

#### Required Courses (45 credit hours)
- RADT 5403  
  Evaluation/Osseous System (3)
- RADT 5413  
  Evaluation/Chest (3)
- RADT 5423  
  Evaluation/Abdomen & GI System (3)
- RADT 5433  
  Evaluation/Genitourinary Systems (3)
RADT 5443: Clinical Pathways (3)  
RADT 5453: Evaluation/CNS System & Facial Structures (3)  
RADT 5463: Problem Patient Management (3)  
RADT 5473: Invasive Imaging Procedures (3)  
RADT 5861: Clinical Preceptorship (3)  
RADT 5862: Clinical Preceptorship (3)  
RADT 5863: Clinical Preceptorship (3)  
RADT 5864: Clinical Preceptorship (3)  
RADT 5865: Clinical Preceptorship (3)  
RADT 5867: Competency Assessment/Residency (3)  
RADT 5868: Final Competency Assessment (3)  

Support Courses (33 credit hours)  
RADT DV3003: Psycho-Social Medicine (3)  
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 3403: Radiobiology & Health Physics (3)  
RADT 3423: Federal Regulations (3)  
RADT 4203: Patient Education in Radiology (3)  
RADT 4303: Cardiology (3)  
RADT 4833: Directed Readings & Research (3)  

RADT 1621. Laboratory Experience (2)  
Continuation of RADT 1601. Prerequisite: RADT 1601.  

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

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

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 (3)  
Experience gained in a health care facility. Prerequisite: Acceptance into the program.  

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 (2)  
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 S13443. 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 protocols 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 (1-2)
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 GI 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'S DEGREE (BS)**

To obtain a baccalaureate degree, the student must complete the WSU General Education requirements (see pages 38-43); 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.

### 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

- HTHS LS1110 Health Sciences (4)
- HTHS 1111 Health Sciences (4)

or the following acceptable equivalent

- Life Science (3)

#### Prerequisite Requirements

- RADT 3243 Patient Care & Assessment II (3)
- RADT 3463 Computerized Imaging (3)

#### DMS Courses Required

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

#### Emphasis Requirements

**Medical Emphasis**

- DMS 4303 Abdominal Sonography (3)
- DMS 4323 Superficial Structure & Special Studies (1)
- DMS 4343 Obstetric & Gynecologic Sonography (3)

**Cardiac Emphasis**

- DMS 4303 Cardiac Sonography I (3)
- DMS 4323 Cardiac Sonography II (3)
- DMS 4344 Laboratory Scanning Experience IV (1)
- DMS 4345 Laboratory Scanning Experience V (1)
- DMS 4365 Clinical Education V (3)
- DMS 4366 Clinical Education VI (3)
- DMS 4387 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)

### DIAGNOSTIC MEDICAL SONOGRAPHY COURSES - DMS

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>DMS 4103</td>
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<tr>
<td>DMS 4303</td>
<td>Abdominal Sonography</td>
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<td>DMS 4323</td>
<td>Superficial Structure &amp; Special Studies</td>
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<td>DMS 4343</td>
<td>Obstetric &amp; Gynecologic Sonography</td>
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<td>Laboratory Scanning Experience IV</td>
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<tr>
<td>DMS 4911</td>
<td>Comprehensive Review II</td>
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**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 4144. Quality Assurance (3)**

Developing, analyzing and evaluating a quality assurance program.

**DMS 4303. Abdominal Sonography (3)**

Concepts in abdominal intraperitoneal and retroperitoneal sono- graphic 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 and 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.
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 major 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.

**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. 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 Nuclear Medicine.

**Course Requirements for Certification**

**Prerequisite Courses**

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

**Nuclear Medicine Courses Required (29 credit hours)**

- NUCR 4103 Radiopharmaceuticals & Dosages (3)
- NUCR 4203 Scanning & Imaging Procedures I (3)
- NUCR 4213 Scanning & Imaging Procedures II (3)
- NUCR 4223 Nuclear Cardiology (3)
- NUCR 4303 Radionuclide Physics & Instrumentation (3)
- NUCR 4333 Quality Assurance (3)
- NUCR 4461 Clinical Education (3)
- NUCR 4662 Clinical Education (3)
- NUCR 4663 Clinical Education (3)
- NUCR 4912 Comprehensive Review (2)
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 S4433. 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.

NUCM 4991. Seminar (1)

NUCM 4991. Seminar (1)

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

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

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

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

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

BIOL 4444. Quality Assurance (3)
Nuclear Medicine departmental policies and procedures.

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

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

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

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

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

Support Courses (12 credit hours)
RADT 3123 Sectional Anatomy (3)
RADT 3143 Imaging Pathophysiology (3)
RADT 3423 Federal Regulations (3)
RADT 4303 Cardiology (3)

Elective
NUCM 4991 Seminar (1)

RADIATION 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'S DEGREE (BS)

To obtain a baccalaureate degree, the student must complete the WSU General Education requirements (see pages 38-43); a major and a minor emphasis; a quality assurance course; and RADT SI4943, Baccalaureate Thesis (3), or equivalent.

RADIATION 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;
   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 S4446 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)
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 consideration 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 transference of didactic instruction to practical clinical practice.

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

RATH 4863. Clinical Education III (3)
Clinical education designed to facilitate transference 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.

DEPARTMENT

Respiratory Therapy

Department Chair: Mr. Paul Ebert
Medical Director: Christopher Anderson, M.D.
Location: Marriott Allied Health Building, Rm 309
Telephone Contact: Marylyn Likartz 801-626-7071
Associate Professor: Paul Ebert; Instructors: Janelle Gardner, 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/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's Degree (BS)

- Program Prerequisite: Completion of AS degree in respiratory therapy or Certificate of Completion from an accredited, advanced respiratory therapist program (R.R.T. 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 AS 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.
# Course Requirements for BS Degree

## Respiratory Therapy Courses Required

Complete the requirements for the BS degree, which requires 61 credit hours, including 25 upper division REST credit hours. Students entering the BS program with a Certificate of Completion in lieu of the AS degree must satisfy the following courses or equivalent:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>REST 3210</td>
<td>Adv Cardiopulmonary Anat/Phys</td>
<td>(2)</td>
</tr>
<tr>
<td>REST 3220</td>
<td>Adv Cardiopulmonary Patho</td>
<td>(2)</td>
</tr>
<tr>
<td>REST 3230</td>
<td>Adv Cardiopulmonary Tech</td>
<td>(2)</td>
</tr>
<tr>
<td>REST 3260</td>
<td>Neonatal &amp; Pediatric Resp Care</td>
<td>(2)</td>
</tr>
<tr>
<td>REST 3270</td>
<td>Adult Critical Care</td>
<td>(2)</td>
</tr>
<tr>
<td>REST 3280</td>
<td>Patient Care Cont/Qual Management</td>
<td>(3)</td>
</tr>
<tr>
<td>REST 3760</td>
<td>Neonatal &amp; Ped Resp Care/Clinical</td>
<td>(4)</td>
</tr>
<tr>
<td>REST 3770</td>
<td>Adult Critical Care/Clinical</td>
<td>(4)</td>
</tr>
<tr>
<td>REST 3780</td>
<td>Clinical Applications</td>
<td>(2)</td>
</tr>
<tr>
<td>REST S3900</td>
<td>Clinical Simulation Seminar</td>
<td>(2)</td>
</tr>
</tbody>
</table>

### 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.

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>REST 4800</td>
<td>Independent Projects</td>
<td>(1-6)</td>
</tr>
<tr>
<td>REST 4830</td>
<td>Directed Readings</td>
<td>(1-3)</td>
</tr>
<tr>
<td>REST 4990</td>
<td>Seminar</td>
<td>(2)</td>
</tr>
</tbody>
</table>

## Suggested Course Sequence

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

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# Respiratory Therapy

## Minor/BIS 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’s 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 BIS degree. Refer to the Interdisciplinary Studies section of this catalog for BIS degree requirements.

## Course Requirements for Minor/BIS Concentration

Select 18 credit hours of upper division REST courses in consultation with an advisor.

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## Entry-Level Respiratory Therapist

### Associate of Applied Science (AAS)

- **Program Prerequisites**: Completion of all prerequisite courses with a grade of "C" or better ("C-" or CR are not acceptable in prerequisite courses). In addition, students must complete an application/selection process, which requires prior completion of 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.

## Admissons Requirements

- **Admissions Requirements**

  Students may contact an advisor in the Dr. Ezekiel R. Dumke College of Health Professions’ Admissions & Advisement Office (Marriott Allied Health Building, Room 108, Phone 801-626-6136, E-Mail healthprofessions@weber.edu) for program information and an application.

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

  - **Admission to Weber State University**
  - **Cumulative grade point average of 2.5**
  - **Graduation from high school or equivalent program**
  - **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’s 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 BIS degree. Refer to the Interdisciplinary Studies section of this catalog for BIS degree requirements.
  - **Additional Required Courses**
    - **Course Requirements**
      - **Grade Requirements**
      - **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.
  - **Admissible Requirements**
    - **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 Code</th>
<th>Course Title</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)</td>
</tr>
<tr>
<td>ENGL EN1010</td>
<td>Introductory College Writing (3)</td>
</tr>
<tr>
<td>COMM HU2110</td>
<td>Interpersonal &amp; Small Group Communication (3)</td>
</tr>
<tr>
<td>or COMM HU1020</td>
<td>Principles of Public Speaking (3)</td>
</tr>
<tr>
<td>or COMM HU2000</td>
<td>Interpersonal Relationships (3)</td>
</tr>
<tr>
<td>or PSY SS2000</td>
<td>Introductory Psychopathology (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)</td>
</tr>
</tbody>
</table>

*Zool* LS1020 Human Biology (3) may be substituted for Human Physiology.

**Course Requirements for AAS Degree**

**Respiratory Therapy Courses Required** *(38 credit hours)*

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

**Advanced Respiratory Therapist**

**ASSOCIATE OF SCIENCE (AS)**

- **Program Prerequisite:** Must be N.B.R.C. certified 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 63 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 an advisor in the Dr. Ezekiel R. Dumke College of Health Professions’ Admissions & Advisement Office (Marriott Allied Health Building, Room 108, Phone 801-626-6136, E-Mail healthprofessions@weber.edu) 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 17) 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 or designated background check. Any student that is convicted of a felony will be dismissed from the program.**
- **Completion of quantitative literacy and ENGL EN1010 and EN2010.**
- **Admission to Weber State University**
- **Completed Advanced Level program application**

**General Education**

Refer to pages 38-43 for Associate of Science requirements. 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 or designated background check. Any student that is convicted of a felony will be dismissed from the program.**
- **Completion of quantitative literacy and ENGL EN1010 and EN2010.**
- **Admission to Weber State University**
- **Completed Advanced Level program application**

**Course Requirements for AS Degree**

**Respiratory Therapy Courses Required** *(25 credit hours)*

- REST 3210: Advanced Cardiopulmonary Anatomy & Physiology (2)
- REST 3220: Advanced Cardiopulmonary Pathophysiology (2)
- REST 3230: Advanced Cardiopulmonary Tech (2)
- REST 3260: Neonatal & Pediatric Respiratory Care (2)
Suggested Course Sequence

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

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 polysomnograph, 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, EEG, 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 intaration, 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 3502 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 (nocturnal 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...
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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) S
Moderated discussion and/or laboratory experiences relating to current events in health care, legislative and ethical issues, and emergent technologies in respiratory care.