



## Program of Study: Bachelor of Science in Medical Imaging Sciences

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### Program Description

The Bachelor of Science in Medical Imaging Sciences offers an opportunity for Imaging Technologists to advance their education by acquiring a Bachelors degree and skills that are relevant to their current vocation. This program offers the Technologist an opportunity for advancement in employment and enables the motivated professional to serve the community at a higher level of healthcare.

### Admission Requirements:

In addition to the general Standards for Undergraduate Admission, all Medical Imaging Sciences degree program applicants must meet the full set of admission requirements from one of the following categories:

- 1) Degree-bearing Candidates
  - a) Possess an Associate degree in an allied health field from an accredited, GCU-approved college, university, or program and be (or have previously been) licensed, certified, or registered in an allied health field.
  - b) Submit official transcripts bearing evidence of a cumulative GPA of 2.50. No transferable credits may have a grade below a "C" (2.00).
  - c) Provide proof of current certification in good standing in Radiography, Radiologic Therapy, Nuclear Medicine, or Sonography by one of the following licensing bodies:
    - i) American Registry of Radiologic Technologists (ARRT);
    - ii) Nuclear Medicine Technology Certification Board (NMTCB); and/or
    - iii) American Registry For Diagnostic Medical Sonography (ARDMS).
- 2) Non-degree-bearing Candidates
  - a) Submit proof of completion of a certified program or a Joint Review Committee on Education in Radiologic Technology (JRCERT) -accredited program.
  - b) Provide proof of current certification in good standing in Radiography, Radiologic Therapy, Nuclear Medicine, or Sonography by one of the following licensing bodies:
    - i) American Registry of Radiologic Technologists (ARRT);
    - ii) Nuclear Medicine Technology Certification Board (NMTCB); and/or
    - iii) American Registry For Diagnostic Medical Sonography (ARDMS).
  - c) Tender official transcripts bearing evidence of a cumulative GPA of 2.50. No transferable credits may have a grade below a "C" (2.00).
  - d) Be prepared to transfer or complete the following general education competencies that are not integrated into the program core with a minimum grade of "C" (2.00)
    - i) 6 credits of English Composition
    - ii) 5 credits of Scientific Inquiry
    - iii) 4 credits of Humanities

Medical Imaging Sciences Core:

| Course Number         | Course Title                                     | Course Description   | Credits |
|-----------------------|--|--|---------|
| HLT 306               | Advanced Patient Care                            | This course offers an advanced approach to patient care, patient education, and patient management within the healthcare facility and the outpatient clinic. It considers more than the patients' physical needs and addresses the patient as a part of the treatment or diagnostic plan. Upon completion of the course the student should be able to demonstrate communication skills with different patient populations such as various cultures, religions, ages, and levels of ability to participate and discuss the approaches the health care professional should use to best interact with each of these groups.   | 3       |
| HLT 308               | Risk Management and Health Care Regulations      | This course addresses the concerns of every health-care professional regarding legal responsibility, workplace safety, and the healthcare facility's obligation to provide protection from injury for patients, their families, and staff. The institution must also be protected from accidental injury costs. This is the purpose of a Risk Management department. Federal, State, County, and City statutes that regulate the administration of safe health care are discussed. At the end of this course the student should be able to explain his part as a health-care professional in the ethical and legal responsibilities of Risk Management.  | 3       |
| BIO 316 <sup>♦</sup>  | Pharmacology for Health Care Professionals       | The content of this course is designed to broaden the health care professional's knowledge of pharmacology. Topics include types and effects of drugs, including diagnostic imaging contrast media. Pharmacology, pharmacokinetics, and pharmacodynamics of drugs commonly used in ancillary healthcare are presented. Conscious sedation, adverse reactions, and patient care under sedation are also included.   | 3       |
| HLT 362 <sup>♦</sup>  | Applied Statistics for Health Care Professionals | This introductory course on statistical concepts emphasizes applications to health care professions. The course is designed to prepare students to interpret and evaluate statistics and statistical methods used in published research papers and to make decisions about the appropriateness of specific statistical methods in a variety of settings. Areas of emphasis will include introduction to analysis of variance, regression, and graphical presentation; experimental design; descriptive statistics; sampling methods; z, t, and chi-square.   | 3       |
| HLT 324 <sup>♦</sup>  | Transcultural Health Care                        | This course explores meanings and expressions of health, illness, caring, and healing transculturally. Focus is on understanding and developing professional competence in caring for individuals, families, groups, and communities with diverse cultural backgrounds. Culture is examined as a pervasive, determining "blueprint" for thought and action throughout the human health experience. Patterns of human interaction that foster health and quality of life are analyzed, and health destroying patterns of interaction, e.g., stereotyping, discrimination, and marginalization, are examined and submitted to moral and ethical reflection.  | 3       |
| HLT 310B <sup>†</sup> | Spirituality in Health Care                      | This course explores the concept of spirituality as it relates to the person who is involved in the healthcare system. Since illness and stress can amplify spiritual concerns and needs, healthcare professionals are in a unique position to assist the patient/client in meeting those needs. This course explores the relationship between healthcare professionals and those they serve. Topics include performing spiritual assessment, identifying those experiencing spiritual well-being as well as those experiencing a threat to spiritual well-being, and planning and evaluating care related to spiritual wellness. A spiritual care framework is used to apply these concepts to a variety of populations in diverse clinical settings. | 3       |

| Course Number         | Course Title                               | Course Description   | Credits |
|-----------------------|--|--|---------|
| HLT 418 <sup>♦</sup>  | Trends and Issues in Health Care           | Trends and Issues explores the impact of numerous professional and societal forces on health care policy and practice. Content includes an analysis of current studies; nursing care policy and position statements; political, environmental, and cultural issues; changing nursing roles. The study of these issues examines the impact on healthcare delivery systems in our society.   | 3       |
| HLT 314               | Health Care Systems                        | The content of this course is designed to impart an understanding of the forces shaping the present and future health care delivery system.  | 3       |
| HLT 312 <sup>‡</sup>  | Ethics for Health Care Professionals       | This course, designed for health care professionals (providers, educators, and managers), introduces the student to major ethical theory, principles, and models for the recognition, analysis and resolution of ethical dilemmas in health care practice. Students learn how to approach ethical dilemmas using theoretical frameworks and decision-making processes. Through the use of case studies, students are introduced to health topics such as patients' rights (paternalism, informed consent to therapy, participation in research); dilemmas of life and death (euthanasia, abortion, transplants, gene therapy, care for the dying); allocation of health-care resources; and special dilemmas of health-care professionals. This course also includes a review of classic cases in health care ethics and how they have shaped health policy. An overview of patient education and ethics and a discussion on the professional codes of ethics and standards are a part of this course. | 3       |
| MDI 424               | Quality Management in Medical Imaging      | Content is designed to provide the basics of imaging system selection and architectural design of an advanced imaging facility. Discussions regarding staffing needs and staff education will be included.   | 3       |
| MDI 410               | Critical Patient Care in Medical Imaging   | Critical procedures such as Advanced Cardiac Life Saving skills, treatment of reactions to contrast media, and physiological monitoring and recording will be presented.   | 3       |
| MDI 304B              | Medical Imaging in the Digital Environment | This course presents an introduction to medical imaging in the digital environment. Included is the history of computers in radiography and a look into the future of digital imaging. Subjects covered are, equipment, interface standards, networking and interfacing, RIS, computed radiography, PACS, image processing and quality, functions and parameters, and practical experiences. At the end of this course the student should be able to discuss the subject of digital medical imaging and continue on to advanced imaging modality studies.  | 3       |
| BIO 317B <sup>♦</sup> | Science Communication and Research         | Research methods and information literacy are important because the health care profession is continually changing, which requires the healthcare professional to possess new knowledge to function competently. This content is geared to increase and disseminate intellectual inquiry, information literacy and the use of scholarly research methods. Prerequisite: HLT 312.   | 3       |
| AMP 450B              | Leadership and Vocation                    | This course emphasizes major behavior patterns that effective leaders use to influence followers, including Ken Blanchard's leadership model. Topics include what effective leaders really do and how leaders can diagnose and modify situations to make their leadership a more positive and productive endeavor.   | 3       |
| HLT 490               | Professional Capstone Project              | Content is designed to aid in the development of inquiry and research skills. Learning research skills and conducting research projects benefits the individual and the profession. The individual benefits by learning new knowledge and skills: the profession benefits by adding to the professional body of knowledge.   | 3       |

*Total Medical Imaging Sciences Core Credits: 45*  
*Other Transfer, Equivalent, Elective, or Certification Credits: 75*  
*Total Bachelor of Science in Medical Imaging Sciences: 120*

- ◆ Course satisfies a Grand Experience Requirement. Check the Academic Catalog for details.
- ‡ Course satisfies a Christian Studies Requirement. Check the Academic Catalog for details.